COMBAT AIRCRAFT 117

Chris Thomas

TEMPEST SQUADRONS OF THE RAF

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CHAPTER ONE

INTO SERVICE

Although the Hawker Tempest would ultimately become one of the peaks of British piston-engined fighter development, it had a convoluted and lengthy gestation that resulted in the Mk V entering service before the Mk II and the Mks I, II and IV seeing no service at all!

Development of the elegant Tempest I HM599, although the fastest of the breed, was abandoned due to the success and earlier availability of the less challenging Tempest V (*Hawker*)

As early as 1940, Hawker Aircraft had come to the conclusion that its heavyweight fighter, the Typhoon, suffered from a major limitation to its performance and further development, namely the wing section. The Typhoon employed a NACA 22 section with a maximum depth at 30 percent chord – the thickness/chord ratio was 19.5 percent at the

root, tapering to 12 percent at the tip. This allowed great structural strength with plenty of room for fuel and armament. It also proved ideal at speeds up to 400 mph. However, when diving trials were carried out on the Typhoon prototype, a sharp increase in drag was evident as 500 mph was approached, followed by buffeting and trim changes. Accordingly, in March 1940, investigations into the advantages of a thinner wing section were undertaken.

Due to changing priorities during the Battle of Britain, the actual design of the new wing was not commenced until September of the following year. The maximum depth of the wing section now occurred further back, at 37.5 percent chord, while the thickness/chord ratio was reduced to 14.5 percent at the root, tapering to ten percent at the tip. The revised wing was five inches thinner at the root than the original Typhoon wing and the profile was also radically changed to a semi-elliptical planform not unlike the Spitfire's.

The new thin wing meant that alternative space for fuel had to be found, and this was achieved by moving the engine forward 21 inches and inserting a 76-gallon tank between the firewall and the oil tank The redesign also included a new undercarriage unit and the latest version of the Sabre engine, the Mark IV. A contract for two prototypes to specification F 10/41 was placed in November 1941, the new type being known as the Typhoon II. Gone was the distinctive Typhoon 'chin', with the fighter's radiators being fitted in the inner wing section and their intakes along the leading edge (similar to the Mosquito), allowing a beautifully slim nose cowling that belied the bulk of the Napier Sabre engine.

By the spring of 1942 problems with the Sabre were casting severe doubts on the viability of future projects reliant on this powerplant. With the Rolls-Royce Vulture out of the running, the same company's Griffon came under scrutiny. A Griffon-engined variant of the Typhoon I was hurriedly designed and a suitably modified airframe despatched to Derby for a trial installation, while one of the Typhoon II prototypes was also now planned to have a Griffon 61 installed. The only other alternative engine was the Bristol Centaurus, but this was in the very early stages of development and could not meet the timescale required for Typhoon II production.

By June 1942 it had been decided to double the existing prototype order. Two airframes were now to have Sabres. One would have the Mk IV, but as this was also behind schedule, the other would have the Mk II – the standard production Typhoon engine. Two more would have Griffon engines and the intention to order a further two Centaurus-powered variants, when this engine became available, was declared. In August the way forward was clarified when the Typhoon II was renamed and mark numbers were allocated to the different variants. The name change was justified as the projected developments were significantly different in appearance from the Typhoon I, but one also suspects that it was politically expedient as the Typhoon's reputation was at its nadir. The name chosen, 'Tempest', followed Hawker's established 'winds' theme, and the mark numbers with designated engines were as follows – Mk I /Sabre IV, Mk II/ Centaurus IV, Mk III/Griffon IIB, Mk IV/Griffon 61 and Mk V/Sabre II.

Perversely, owing to the delays with the Sabre IV and Centaurus engines, and the redesign necessary for the Griffon installation, the Mk V was ready to fly long before the

others. This event took place on 2 September 1942, with Philip Lucas at the controls. At the time the aircraft featured the early Typhoon-style heavily framed canopy, although a mock-up of a proposed one-piece ‘bubble’ sliding hood was already under construction. Inevitably, the extra length of the nose needed compensation and both vertical and horizontal tail surfaces were increased in area, the former by the addition of a fin fillet and the latter by replacement with a unit of greater span and chord. It was soon evident that the new wing was giving its expected benefits, handling at speed being much smoother and crisper, and there was no evidence of the vibration experienced by Typhoons.

Arguments as to the fixed armament to be carried in the wing had raged for over a year – three 20 mm cannons per wing losing favour to the ‘universal wing’ that would allow two 20 mm cannon, or a single cannon with a 0.5-in machine gun or two 0.303-in machine guns. It proved impossible to incorporate all these alternatives in the new slim wing, and a four 20 mm Hispano Mk II cannon with 200 rounds per gun was the eventual decision. The choice would serve the Tempest well.

INTO SERVICE

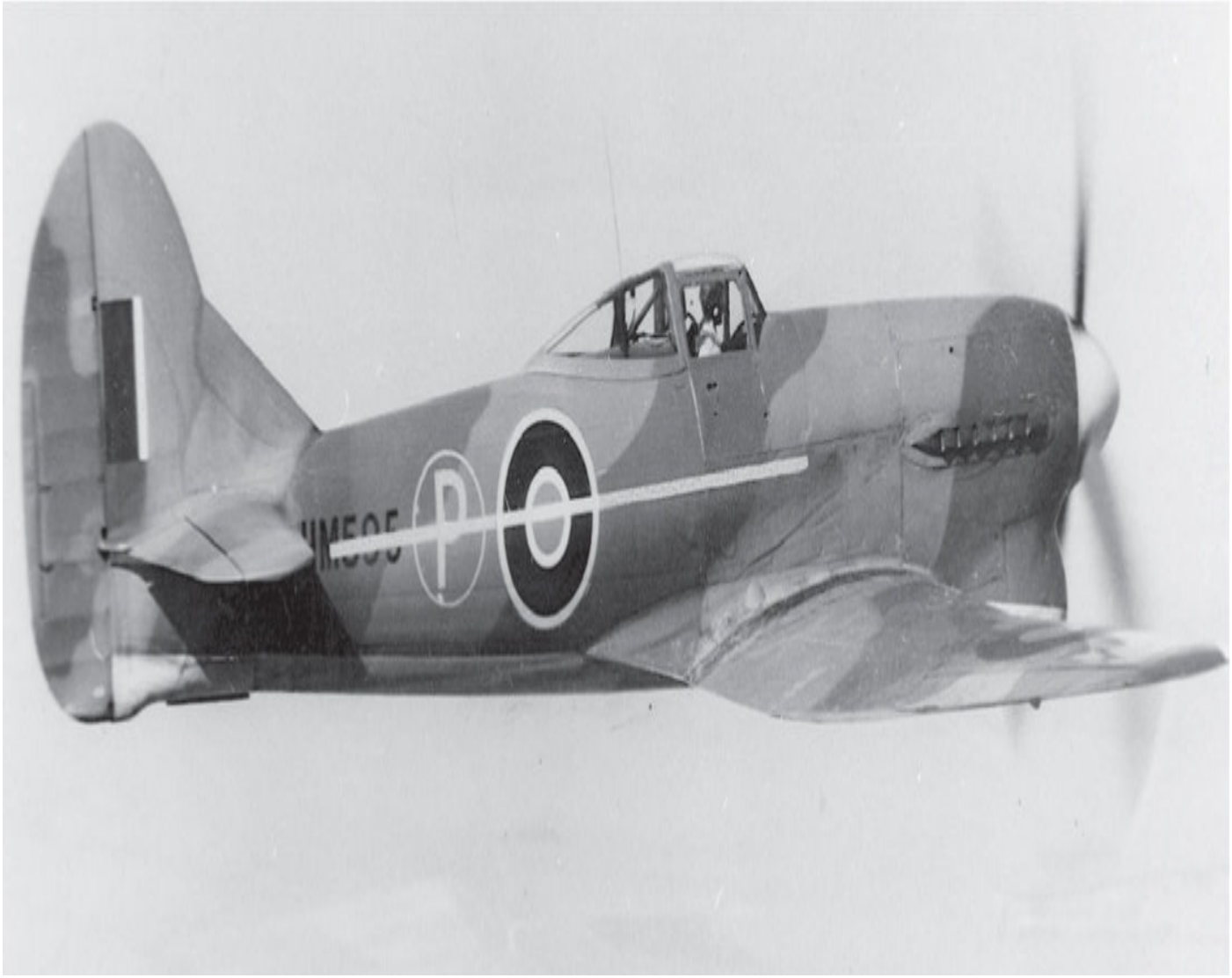
The first production Tempest V flew on 21 June 1943 as part of an initial order for 100. These aircraft were known as the Mark V Series 1, and were distinguished from later Mark V Series 2 by having the longer-barrelled Hispano Mark II cannon that protruded some eight inches beyond the leading edge. There were other features, or lack of them, that identified these early machines – the use of modified Typhoon centre-sections in the first 50 and the inability to carry long-range tanks, bombs or rocket projectiles (RPs).

In October of the same year, the third production Tempest V was delivered to the Aeroplane and Armament Experimental Establishment (A&AEE) at Boscombe Down in Wiltshire for a series of tests including performance and handling trials. The resultant report was generally satisfactory, with the main areas of criticism being heavy ailerons (although they could still be moved at 535 mph IAS [indicated airspeed] in a dive) and poor roll rate – these aspects would soon be greatly improved. The view from the cockpit (with a canopy identical to that of the sliding hood Typhoon) was considered excellent. Maximum speed was found to vary between 376 mph at sea level and 432 mph at 18,400 ft, a very useful 411 mph being recorded at a 6600 ft. It was apparent that with a little more refinement the RAF was about to receive its most potent medium-and low-level fighter yet.

To find out just how good it was going to be, an early production aircraft was dispatched to the Air Fighting Development Unit (AFDU) at Wittering, in Lincolnshire, for comparative trials with current Allied and German fighters. By now production Tempests were fitted with the spring-tab ailerons that dramatically improved the roll rate, especially at speeds above 250 mph IAS.

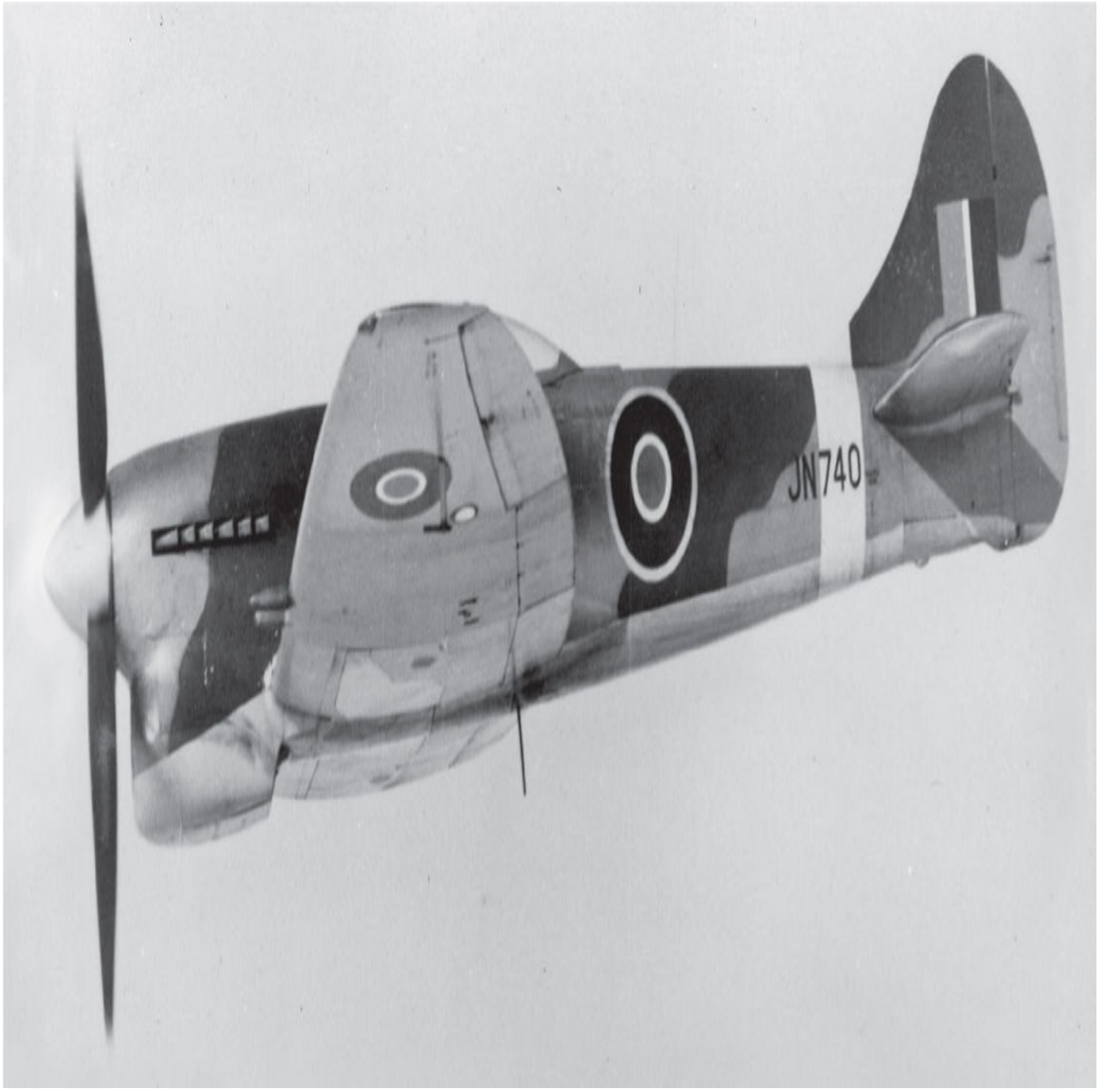
Firstly, the Tempest was flown against a Typhoon (with the old framed canopy), and the advantages of the new canopy were immediately apparent in takeoff, landing, formation flying and dogfighting. The all-round view was considered superior to any Allied or enemy aircraft in service at that time. The engine was smoother and rudder, ailerons and elevators were all found to be more effective than its predecessor’s. Maximum speeds at various altitudes and settings were 15-20 mph higher than the Typhoon’s, the extra speed

compensating for the reduced internal fuel capacity. It was also calculated that the improved performance gave the Tempest a similar range to the Typhoon. Climb rate was about 300 ft per minute better at maximum rate-of-climb, but ‘zoom’ climb was greatly improved due to the aircraft’s cleaner airframe, and dive performance similarly benefited. In fact the Tempest’s acceleration in the dive was remarkable. This and its steadiness as a gun platform would be the keys to its success in combat over northwest Europe.



The prototype Tempest V HM595, seen here whilst undergoing testing at the A&AEE, retained the original Typhoon-style canopy and was fitted with a larger tailplane plus interim fin extension for handling trials (*A&AEE*)

Comparison with the Mustang III, Spitfire XIV, Bf 109G and Fw 190A revealed that the Tempest was faster than all of them below 20,000 ft – 15-20 mph in the case of the Allied types, 40-50 mph for the German aircraft. At higher altitudes the Mustang and Spitfire soon reversed this, but while the Bf 109G could match the Tempest, the Fw 190 remained slower. The Tempest could just be out-turned by the Mustang, and more easily by the Spitfire, but it could hold its own with the Fw 190 and out-turn the Bf 109, which was embarrassed by its leading edge slats opening near the stall. In roll rate the Tempest could not compare with the Fw 190 and was also inferior to the Mustang and the Spitfire, although the situation was reversed with the latter at speeds in excess of 350 mph. Below this speed the Tempest was roughly equal to the Bf 109, but above it the German fighter could be lost by making a quick change of bank and direction.



Tempest V JN740 spent most of its life on loan to the A&AEE, although on 1 March 1944 it was returned to Hawker for a three-month spell. To the company's annoyance JN740 had had its Typhoon-style underwing identity stripes (as on JN731 below) painted out, and in 'Sky' rather than 'Medium Sea Grey'. In fact the Tempest stripes were not ordered to be removed until 20 April 1944 (via *R C Sturtivant*)

In comparing the Tempest with the Spitfire XIV, the AFDU noted that the attributes of the two aircraft were completely different, and for this reason Typhoon squadrons should re-equip with Tempests and the Spitfire XIVs should go to units equipped with earlier marks of Spitfire.

In the autumn of 1943 deliveries of the first Tempest Vs to the RAF were in prospect, and the selection of the first recipient units was made – Nos 197 and 486 Sqns, then enjoying considerable success with Typhoons at Tangmere. The Tempest would enter service as a 'straight fighter' rather than a fighter-bomber as the first 100 aircraft would not be equipped to carry bombs, and the ability to fire RPs was not expected until the 150th example.

The third production Tempest V Series 1 aircraft, JN731 spent much of its early life on trials with the A&AEE at Boscombe Down. Note that this aircraft features the exhaust fairings fitted to production Typhoons at the time (circa November 1943), but which were later rejected as they could trigger engine overheating problems (*A&AEE*)

However, events of late 1943 and early 1944 would modify the plans. The burgeoning 2nd Tactical Air Force (TAF) began sucking in Typhoon squadrons for the ground attack role, including No 197 Sqn. The Tempests would initially be allocated to No 85 (Base) Group of that organisation, with a defensive role, but remaining under the control of Air Defence of Great Britain (ADGB, as Fighter Command was temporarily known). It was also foreseen that the Tempests' unmatched low-level performance could be a great asset

in combating the V1 flying bomb, whose launch sites were already being pounded by the RAF and USAAF, although the performance of this looming menace was as yet unknown. The first Tempest wing was now planned, with No 486 Sqn being joined by Nos 3 and 56 Sqns – two of No 11 Group's remaining Typhoon units.

One of the two serviceable Tempests following No 486 Sqn's mass birdstrike at Tangmere on 4 February was JN738 SA-Z, seen here flying from Beaulieu in February 1944. It would be transferred to No 3 Sqn at the end of the month, and in July the fighter was loaned to the RAE for performance enhancement trials (*via S B Feldman*)

The first three Tempest Vs were delivered to No 486 Sqn RNZAF, still at Tangmere in

West Sussex, on 14 January 1944, two more arriving a week later. The more senior pilots soon got to grips with the new type, and at the end of the month the unit moved to Beaulieu in the New Forest to operate with No 263 Sqn, newly converted from Whirlwinds to Typhoons. The move took several days, and when the last Typhoons and Tempests left Tangmere they saluted the airfield that had been their base for the last 15 months (a period which had seen No 486 Sqn rise to become one of Fighter Command's most successful units) with a rousing 'beat-up'. Unfortunately, as the Tempests pulled up at the airfield boundary, they were 'intercepted' by a flock of plovers and three of the new fighters were victims of 'birdstrikes', sustaining 'Category Ac' damage.

With these aircraft out of action for between two and three weeks, the remaining two Tempests were not sufficient to sustain a conversion programme. However, exactly why these latter two aeroplanes (and the others, when repaired) were then allocated to No 3 Sqn at Manston, in Kent, and No 486 Sqn was posted to Drem, in Scotland, has never been fully explained. The official line was that No 3 Sqn was nearer to the parent company (said to be vital for the 'shake-down' period) and No 486 Sqn's posting was an 'administrative error'. Perhaps so, but the move may well have been more in the nature of a 'punishment posting' following the New Zealanders' less than auspicious treatment of the RAF's new fighter. This delay would be followed by more serious ones – the frequent failure of propeller oil seals, the ponderous progression of the new type through No 43 Group's acceptance and preparation procedures and an industrial dispute at Hawker's factory.

Receiving its first Tempests at the end of February, No 3 Sqn took them and its Typhoons to Bradwell Bay in Essex a week later. The ADGB was reorganising for its role during the forthcoming invasion period and No 25 Wing formed at Castle Camps in Suffolk with one of its two constituent 'airfields', No 150, planned as the first Tempest wing.

Newly promoted Wg Cdr Roland Beamont, having just completed a 'rest tour' as one of Hawker's test pilots readying the Tempest for service, and having been selected by Air Officer Commanding (AOC) No 11 Group, Air Vice-Marshal H W L Saunders, for the task of preparing the first Tempest wing, arrived on 7 March at Castle Camps to fill the post of Wing Commander Flying, No 150 Airfield.

One of No 486 Sqn's last Typhoons (MN282/SA-R) accompanying one of their first Tempests (JN766/SA-N) in April 1944 serves to illustrate the essential differences between the types. The Tempest's totally redesigned wing is apparent, along with the shorter cannon barrels (which would be hidden completely in later aircraft), longer nose and fin fillet (*RNZAF*)

Six days later No 486 Sqn escaped its isolation at Drem and moved into Castle Camps, where from 3 April it began receiving a full complement of Tempests. No new aircraft were yet available for No 56 Sqn, however, and it remained at Scorton in North Yorkshire. During late March and through April each of the three units then spent a week at Ayr Armament Practice Camp (APC) in Scotland – No 3 Sqn with ten Tempests and four Typhoons, No 486 Sqn with just four Tempests among its Typhoons and No 56 Sqn

(which spent most of April at Ayr) still being fully Typhoon-equipped. For the former two units it was valuable air-to-air firing experience with their new mounts.

In the last days of April the three squadrons gathered at the new base of No 150 Wing, Newchurch, on Romney marshes in Kent, chosen from a shortlist of advanced landing grounds (ALGs) on or near the south coast – the others were Headcorn, also in Kent, Friston in East Sussex and Gatwick and Apuldram in West Sussex. The location reflected the Tempest's intended role as an air superiority fighter over the forthcoming invasion beachhead and the spearhead of defence against the expected bombardment of flying bombs.

Supply of Tempests was still slow and the decision was made to temporarily equip No 56 Sqn with Spitfires, as Typhoons for the fighter-bomber units of 2nd TAF were in short supply. The first Mk IXs flew in soon after the squadron arrived at Newchurch and the Typhoons were flown off to No 13 Maintenance Unit (MU) for essential modifications. Until Tempests arrived, No 56 Sqn would take over the role of No 501 Sqn at Hawkinge in Kent, which entailed weather and shipping reconnaissance, air-sea rescue (ASR) searches and occasional squadron-strength sweeps – ideal training for the unit which now contained many inexperienced pilots.

OPERATIONAL FLYING COMMENCES

Although No 3 Sqn had undertaken four ASR searches and two uneventful scrambles with Tempests whilst at Bradwell Bay, the first fully operational flights were not flown until 3 May 1944 when Sqn Ldr Alan Dredge led eight aircraft on a sweep over enemy territory to Armentières in northern France. No opposition was encountered but the unit and No 486 Sqn began a series of small-scale operations that soon allowed the Tempests to fire their cannons in action. Along with less exciting weather and shipping 'recces', 'Intruders', 'Rangers', 'Roadsteads' and fighter sweeps were flown, with enemy transport of all types feeling the weight of the Tempests' firepower.

Sqn Ldr Alan Dredge was No 3 Sqn's CO when it received Tempests. Seen here enjoying a joke with the unit's Intelligence Officer, Dredge had flown Hurricanes with No 261 Sqn in Malta (claiming four destroyed, one probable and one and two shared damaged) and Typhoons with No 183 Sqn prior to taking over No 3 Sqn in October 1943. Credited with the destruction of five V1s, he was rested at the end of August 1944 and awarded the DSO. Sadly, he was killed in a Mosquito crash just ten days after VE-Day (*H J Bailey*)

On the night of 8/9 May No 3 Sqn's Flg Off Bob Barckley, after attacking and setting a lorry on fire, had an encounter of possibly rather more significance. South of Le Havre he saw a bright light at 3000 ft and gave chase at increasing speed, but it proved difficult to catch. According to the squadron's operational record book a burst of cannon fire had no apparent effect, but Barckley later stated, 'I fired a long burst and it immediately went down. It crashed in the sea in the area of Deauville – my logbook refers to it as a "jet-ship".' *Flakregiment* 155 (W) is known to have fired test rounds during this period, and Barckley's 'jet-ship' may well have been the Tempest's (and indeed the Allies') first success against the Fieseler Fi 103 – better known as the V1 flying bomb – in combat. In a month's time the V1 would become the Tempest's principal foe for the summer of 1944.

Carried out by pairs of Tempest, the weather and shipping reconnaissance sorties were not without their perils. During April and May there had been six engine failures that resulted in forced landings with four Tempests written off, but fortunately no fatalities. It was also fortunate that these engine failures had occurred over land, but on 27 May two Tempests failed to return from a shipping reconnaissance – they were last reported in the Gris Nez area off the coast of France. At the time it was thought they had probably been intercepted by German fighters, but no claims appear to have been made. Double engine failure seems unlikely, leaving a mid-air collision or a lucky shot by German long-range guns, which often lobbed large-calibre shells in the path of the low-level patrols, as possible causes. The Tempest had suffered its first fatalities in action – Flg Off T Zurakowski and Flt Sgt J L Mannion remain missing, their fate unknown.

The very next day, as if to avenge the loss of their comrades, Wg Cdr Beamont led four No 3 Sqn Tempests on a 'Ranger' to Cormeilles airfield, near Paris, where Wg Cdr 'Johnnie' Johnson's Spitfire pilots had earlier sighted a number of Ju 88s apparently positioning for a raid. Peeling off at 10,000 ft, the Tempests dived out of the sun, as later described by Beamont;

'In anticipation of flak I had decided to attack at high speed and steadied at about 470 mph passing 5000 ft. A quick glance behind to see the Tempests lining up to starboard and following closely, and so into the attack! My target was clearly a black-painted Ju 88 (later identified as a very new Ju 188 version) in a high-walled blast pen. A short ranging burst and then hard down on the trigger, ruddering correction as necessary, as the blast pen erupted in strikes, with bursts all over the bomber and a large piece of it flying in the air as I snatched at the stick at the last moment to avoid flying headlong into the target.'

Flg Off Bob Barckley of No 3 Sqn may have been the first Allied pilot to shoot down a V1 flying bomb when he fired at a bright light near the French coast on the night of 8/9 May 1944. He was later credited with the destruction of 12 flying bombs and a further one shared destroyed (*No 3 Sqn Association*)

Of the five bombers dispersed on the southern edge of the airfield, two were claimed as destroyed and two more damaged. The Tempests departed at high speed and low level, untouched in a hail of flak.

On 3 June 1944, a No 3 Sqn 'Ranger' led by Belgian 'B' flight commander Flt Lt Remi van Lierde over his home territory located and destroyed a train carrying more than 100 vehicles – it was the last significant action before the arrival of D-Day. Much had been accomplished over the preceding weeks as the new fighter was eased into service. The problem with propeller seals, which had left many pilots coping with oil-obscured windscreens was, with the improving availability of effective oil seals, coming under control. Teething problems with the shorter-barrelled Hispano Mk V 20 mm cannon, introduced with the Series II Tempests now arriving in increasing numbers, had also been overcome. However, faulty constant speed units (CSUs) fitted to the aircraft's four-bladed de Havilland propeller would continue to give problems for some time yet and lead to a number of forced landings. Undercarriage units, supplied by Dowty, also gave trouble, with failures often being traced to cracks in the gear legs. It was some weeks before this defect was rectified.

FIRST KILLS

The two Tempest units (there was no hope of replacing No 56 Sqn's Spitfires in time for the invasion of Europe) approached D-Day eager for action. Unfortunately, when D-Day arrived on 6 June, the Luftwaffe's response was much less than expected, and the Tempests, restricted to routine and uneventful 'recces' and convoy patrols during the day, did not get a sniff of the action. Things looked up late in the evening when Beamont led ten Tempests on a beachhead patrol in response to expected enemy activity. This did not, however, materialise, and the wing commander, with his Newchurch base 'clamped', was left with the difficult task of recovering his force in total darkness and deteriorating weather. Directed to RAF Ford in West Sussex, nine of the ten Tempests managed to land (joining 200 other day fighters that found refuge there), with the tenth overshooting. In the gloom, the pilot managed to spot the flarepath of RAF Dunsfold in Surrey and promptly landed there.

The next day passed uneventfully, but on D+2 the Tempest would see air combat at last. Leading No 3 Sqn on a patrol line between Rouen and Lisieux, with No 486 Sqn as cover, Beamont spotted five Bf 109Gs in line astern 5000 ft below them. Diving down to intercept, he was able to close in behind the enemy formation, choosing the last man as his target as he recalled in his book *Tempest Over Europe*;

'At about 500 yards they saw us coming and broke very sharply to port, with maximum boost exhaust smoke and curling white vortices streaming from their wingtips. Eliminating consideration of the leader and the rest, I fastened on to my target and pulled tightly inside his turn to open fire with a short burst at about 400 yards. We were closing very fast, and as he rocked his wings in violent changes of bank I had to throttle back sharply to stabilise below his tail-wheel at about 100 yards. In an over-the-vertical bank

and at about “one ring” deflection, which gave an aim line well forward of his spinner, a second short burst showed strikes on the fuselage and wing roots and he suddenly streamed smoke and oil onto my windscreen.

Wg Cdr Roland ‘Bee’ Beamont, who had both operational and test flying experience of Typhoons and had also taken part in Tempest development, was chosen to lead the first Tempest wing (*Wg Cdr R P Beamont*)

‘Breaking right as he slowed sharply, I rolled back alongside his tailplane and saw fire

streaming from the wing roots but no sign of the pilot in the cockpit. Confident of cover by my No 2, “Lefty” Whitman, I had not looked back for a significant few seconds and then bang! The Tempest shook, there was a strong smell of cordite and a cauliflower-sized hole had appeared in my starboard wing!’

Whitman wrote in his combat report;

‘As they were attacked they split into two sections and I observed strikes on the fuselage and starboard wing of the Wing Commander’s target. Then I saw it burst into flames and the starboard wing came off, the aircraft flicking over and going down in flames. Before making an attack myself I looked behind and saw two Me 109Gs slightly above on the port quarter diving in to attack out of the sun. I throttled back and the leader overshot. I opened fire at 300 yards with IAS 370 mph with 15 degrees deflection. The enemy aircraft did a climbing turn to port and I saw two strikes, one in the wing root and one in the cockpit, and then the target blew up.’

Whitman had caught the Bf 109 before it could do further damage to Beamont’s Tempest JN751/RB. Meanwhile, ‘Green 1’, Flt Lt A R Moore, had latched onto a third, which he destroyed in no uncertain manner;

‘When at about 600 yards we recognised them as Me 109Gs camouflaged a mottled brown. As we closed to about 300 yards the Mes broke to starboard towards cloud. I saw the Wing Commander go for one of the enemy aircraft and I picked out another that was diving under cloud at about 7000 ft quite straight. I was then indicating 300 mph and closed in easily to about 200 yards with IAS 360 mph and gave it a one-second burst from dead astern.

‘Flames immediately appeared from the starboard side of the cockpit, followed by almost complete disintegration of the cockpit area. It then turned on its back and went straight down in flames.’

Flt Sgt M J A Rose had lagged behind, suffering from the CSU failure curse and was forced to put his Tempest down in the beachhead area, fortunately in Allied territory.

Beamont landed safely back at Newchurch and his Tempest was fitted with a new mainplane. The action had given the wing and the Tempest an excellent start to their air combat careers, demonstrating the aircraft’s deadly firepower and its accuracy in the dive. On subsequent days more patrols were made over Normandy, but the only enemy reaction encountered was in the form of flak. In due course this ever-present hazard would claim the lives of far more Tempest pilots than the Luftwaffe’s fighters.

On 10 June came another landmark, albeit less welcome. The first Tempest pilot to ditch was Plt Off Bruce Lawless in JN772/SA-Q, in which he was forced down just off Dungeness after suffering engine failure – the CSU jinx had struck again. However, unlike many a Typhoon ditching, the Tempest settled perfectly on the sea, giving Lawless time to exit and board his dinghy. This ditching performance had been predicted by model/water tank tests at the Royal Aircraft Establishment (RAE) at Farnborough, in Hampshire, and the pilots were pleased to have it confirmed for real. This was just as well, for in the next week the wing’s role would change completely and the Tempest pilots would be spending a lot more time patrolling over the Channel.

CHAPTER TWO

TEMPEST VERSUS THE ‘FLAK TARGET APPARATUS’

During the winter before Nos 3 and 486 Sqns had equipped with Tempests, both had been operating Typhoons as fighter-bombers. In this role regular targets had included mysterious construction works in northern France, codenamed ‘Noball’. No less than 16 sites were under construction, and each included four long narrow buildings with a distinctive curve at one end, leading to their popular name of ‘ski-sites’. These buildings were in fact storage facilities, and the curve at the open end was intended to stop cannon fire or other weapons travelling down the interior. Each complex also included a more threatening launch ramp among other supporting buildings. Although at the time the pilots were not told the purpose of the sites, the mystery would be revealed in no uncertain manner on the night of 12/13 June 1944.

Tempests of No 486 Sqn in their dispersal area at Newchurch ALG soon after the anti-'Diver' patrols began. JN754/SA-A, in the foreground, is a Mk V Series 1, whilst the aircraft on the left, JN801/SA-L, is a Mk V Series II (*RNZAF*)

A large proportion of the RAF and USAAF fighter-bombers and medium bombers were involved in the relentless attacks against what were well-defended targets, and by February 1944 the Germans had realised that these vulnerable sites could never be completed and kept operational. Accordingly, a new programme of site preparation was initiated, with a much simpler design taking advantage of natural camouflage. With characteristic efficiency, the Germans had 80 sites potentially operational by the second week of June. The weapon to be launched from them was the Fi 103 flying bomb, which had been developed under the cover designation of *Flakzielgerät* 76 (Flak Target Apparatus 76), usually abbreviated as FZG 76. The flying bomb had the appearance of a small aircraft, with an overall length of 8.35 m and wingspan of 5.38 m. It was powered by an Argus pulse-jet mounted above the rear fuselage that produced the characteristic rattling drone that announced its approach. Each carried a warhead containing 1870 lb of Amatol explosive, and initially all were targeted against London.

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The CO of No 486 Sqn throughout the flying bomb campaign was Sqn Ldr Johnny Iremonger, who had taken command at the beginning of the year after a period flying Typhoons as a supernumerary with No 486 Sqn's neighbour at Tangmere, No 197 Sqn. He had flown Mohawks and Hurricanes in the Far East and dropped a rank to get back on operational flying (*via S B Feldman*)

This rather crude but terrifying device could only be aimed in the general direction of London, with its engine set to cut out at an appropriate range. It would attract various names from the British population and Allied service personnel – 'Diver' (the official code name), 'Beechcraft' (another code name), 'P(ilotless)-plane', 'robot plane', 'buzz-bomb' and 'doodlebug'. The latter name oddly reflected the German code name chosen when the assault was imminent, 'June Bug'. However, all these were somewhat overshadowed by the name with which the device was revealed to the German public – *Vergelstungwaffe* 1 (vengeance weapon one) or V1.

For the Germans, the campaign did not start well. Under pressure to commence the assault on time, most of the sites, although structurally complete, were unable to launch missiles due to critical supply shortages (exacerbated by the Allied invasion of Normandy) of various essential items. Instead of the 600 V1s planned, a mere ten were launched, and of those, only four reached British shores. Just one missile landed within London's boundaries, claiming the lives of six civilians.

The Newchurch Wing got its own wake-up call at about 0400 hrs on the morning of 13 June when two V1s flew across the airfield in quick succession. The wing's base had been well chosen, but perhaps too precisely! The visitors appeared to be at about 1500-2000 ft and travelling at 350-400 mph – a performance that would be matched by successive waves in days to come. Patrols were launched but no further 'Divers' were reported that day.

For three days there was no V1 activity from France, but on the morning of 16 June it started again. The first two No 3 Sqn Tempests were airborne at 0720 hrs, and 30 minutes later Flt Sgt Maurice Rose despatched the first V1 – it burst into flames in the air and came down near Maidstone. However, in an early indication of problems to come, Rose's Tempest was then hit by US Army gunners and he was fortunate to make a safe landing at Newchurch with a hole in the wing that required a complete wing change. By the end of the day No 3 Sqn had claimed nine flying bombs and No 486 Sqn had downed two more. Spitfires also claimed two.

The Tempests were not the only aircraft employed full-time to counter the V1 assault, squadrons operating other high-performance fighters such as the Spitfire XII and XIV and Mustang III. These types provided the rest of the main defence, whilst units flying Spitfire IXs were also allocated the anti-'Diver' patrols. Later in the campaign Manston-based Meteors and ADGB's last Typhoon squadron would also be involved. By night, defence fell mainly to squadrons equipped with various marks of Mosquito (see *Osprey Aircraft of the Aces 113 – V1 Flying Bomb Aces* for further details).

Photographed at Newchurch in mid-June 1944, resplendent in full ‘D-Day stripes’, Sqn Ldr J H Iremonger’s No 486 Sqn Tempest JN763/SA-F suffered engine problems on 17 June. After repair, it was loaned to the RAE for engine boost trials with 150 octane fuel. When returned, it continued in service with the unit until the end of July, at which point it was replaced by a new SA-F, EJ577 (*RNZAF*)

It took some days to develop the best tactics to use against this new threat, and to organise the defences for best efficiency. Wg Cdr Beamont later outlined some of the problems his wing faced;

‘With a three-foot cross section fuselage and eight-inch thick wing, the V1s proved to be extremely small targets to hit from the stern quarter, which, by virtue of their high speed, was the segment in which the vast majority of fighter attacks ended up. Then there was the question of firing range and how close to go in, relative to the chances of blowing yourself up when the warhead exploded. Starting at 400 yards, we experienced much wastage and frequent missing altogether until, when closing to 200 yards before firing, a higher success rate was achieved but losses were sustained due the debris and fire damage.’

At that time ADGB fighters had their guns harmonised to fire in a spread pattern designed to give the best chance of a hit. Realising that this new small target needed special treatment, and taking advantage of the Tempest’s excellence as a gun platform, Beamont had his cannon harmonised to hit a point at a range of 300 yards. Proving to his own satisfaction the effectiveness of this arrangement, Beamont ordered all his wing’s Tempests to have their cannon set up in the same way, producing an immediate improvement in the scoring rate. He had also successfully carried out a trial night interception, although not without difficulty as he later recalled;

‘The radar interception was made far easier than in daytime of course by virtue of the fact that the brilliant flame of the pulse-jet could be seen at night for ten or fifteen miles in good weather, and all one had to do was close at full throttle until at firing range. But here was the problem. With nothing to judge distance by except the light, which got bigger and more dazzling, it was not easy to get into an effective firing range without suddenly overshooting or possibly even running into the target.’

Boffins duly set out to find a solution.

SQUEEZING PERFORMANCE

It soon became apparent that the defending fighters needed every bit of speed possible to maximise their effectiveness against the ‘Divers’. On 24 June the RAE’s Chief Test Pilot, Wg Cdr Roly Falk, and three of its engineers visited Newchurch to look at possible methods of increasing the Tempest’s speed, especially near ground level. Wing surface finish, engine power and exhaust design seemed promising areas to investigate. Radiator modifications were considered but rejected as impractical. Propeller change was another possible factor and reversion to the more reliable three-blader used on Typhoons was an option. However, modifications to the troublesome oil seals and CSU units were in hand so this was not pursued.

Returning from an anti-‘Diver’ patrol low on fuel on 22 June 1944, Flg Off T M ‘Ike’ Fenton found JN806/SA-Q’s undercarriage would not operate correctly. With insufficient fuel left to investigate the problem, he was forced to attempt a landing with one wheel locked down. Fenton was lucky to escape the ensuing crash, but ‘Queenie’ was a write-off (*T M Fenton via P Sortehaug*)

The Tempest’s wings were, of course, painted with the full rendition of ‘D-Day stripes’, which had been applied in distemper and covered approximately half of both the upper and lower wing surfaces. Not only was the distemper drag-inducing in itself, but it was

also causing the paint beneath to flake, with damaging effect on the laminar flow over the wing. It was also noted that Wg Cdr Beamont had returned his JN751/RB to Hawker for repainting of the stripes in smooth paint, and subsequently recorded a 10 mph increase in maximum speed at low level. Accordingly, the RAE team recommended the removal of the 'special markings', or their replacement with stripes applied in a smooth paint. It would seem that the latter course was judged impractical and time-consuming as, although no subsequent order to remove the stripes has been located, photographic evidence shows Tempests and other types operating against the 'Divers' in July and August 1944 without the offending stripes, at a time when stripes beneath the wings and fuselage should still have been worn.

Increase in engine power by lifting the limit on boost from +9 to +11 lb/sq in was soon adopted following approval by Napier. The only improvement to the current exhaust stub design would be to use the fairings fitted to Typhoons earlier in the year (these can be seen today, fitted to the sole Typhoon survivor, MN235, and in the photograph of JN731 in this volume). These essentially blanked off the gap between the stubs and the surrounding cowlings and would give a speed increase of 6 mph. Their use on Typhoons, however, had been discontinued owing to overheating problems, so use on Tempests at full power and low level in summer did not seem too promising!

Two Newchurch Tempests, JN738 and JN763, were loaned to the RAE for performance improvement trials. The complete rubdown, stripping and then repainting of the wing leading edges produced a 5.5 mph improvement, but this was with +7.5 lb/sq in boost, as the engine on the test aircraft (JN738) was unable to give the +9 lb/sq in normally available for combat. A replacement, JN735, was provided, but it burst into flames when flown at +11 boost. Disintegrating pistons and piston rings had caused the Sabre to seize, and test pilot Lt Cdr Eric 'Winkle' Brown was forced to bail out. The other Tempest, JN763, was flown at +10 and +10.5 lb/sq in boost with 150 octane fuel, which gave a 10-15 mph increase over normal speeds. A projected 20 mph improvement was forecast for +11 lb/sq in boost.

Similar efforts to improve performance were also made to a Spitfire XIV and a Mustang III, and along with the Tempests, their True Air Speeds at 3000 ft were checked. The Mustang and the sole surviving Tempest, JN763, were credited with 412 mph and the Spitfire just exceeded 400 mph. The Tempest's true advantages were its high cruising speed and quick acceleration in the dive, rendering interceptions much easier. With Napier's agreement, the 150 octane fuel and increased boost settings were employed by the Newchurch Wing. Improvements in surface finish were also attempted but were not always successful in the prevailing operational conditions.

No 3 Sqn's Flt Sgt H J Bailey usually flew JN807/SA-Y. This photograph is known to have been taken in August 1944, and it illustrates how No 122 Wing's Tempests (and other aircraft on anti-'Diver' operations) had by then been stripped of their D-Day 'special markings' and polished. Aircraft in the invasion area were still carrying stripes beneath the fuselage and wings at this point in the conflict, however (*H J Bailey via A Lamb*)

On 21 July Lt Cdr Brown and Dr Stewart from the RAE visited and noted poor finish on the wings of the Tempests. JN751/RB had had flaked painted rubbed down on the leading edges of its wings, revealing bare metal in some cases. Whereas Spitfires and Mustangs had benefited from the removal of equipment such as rear-view mirrors, the

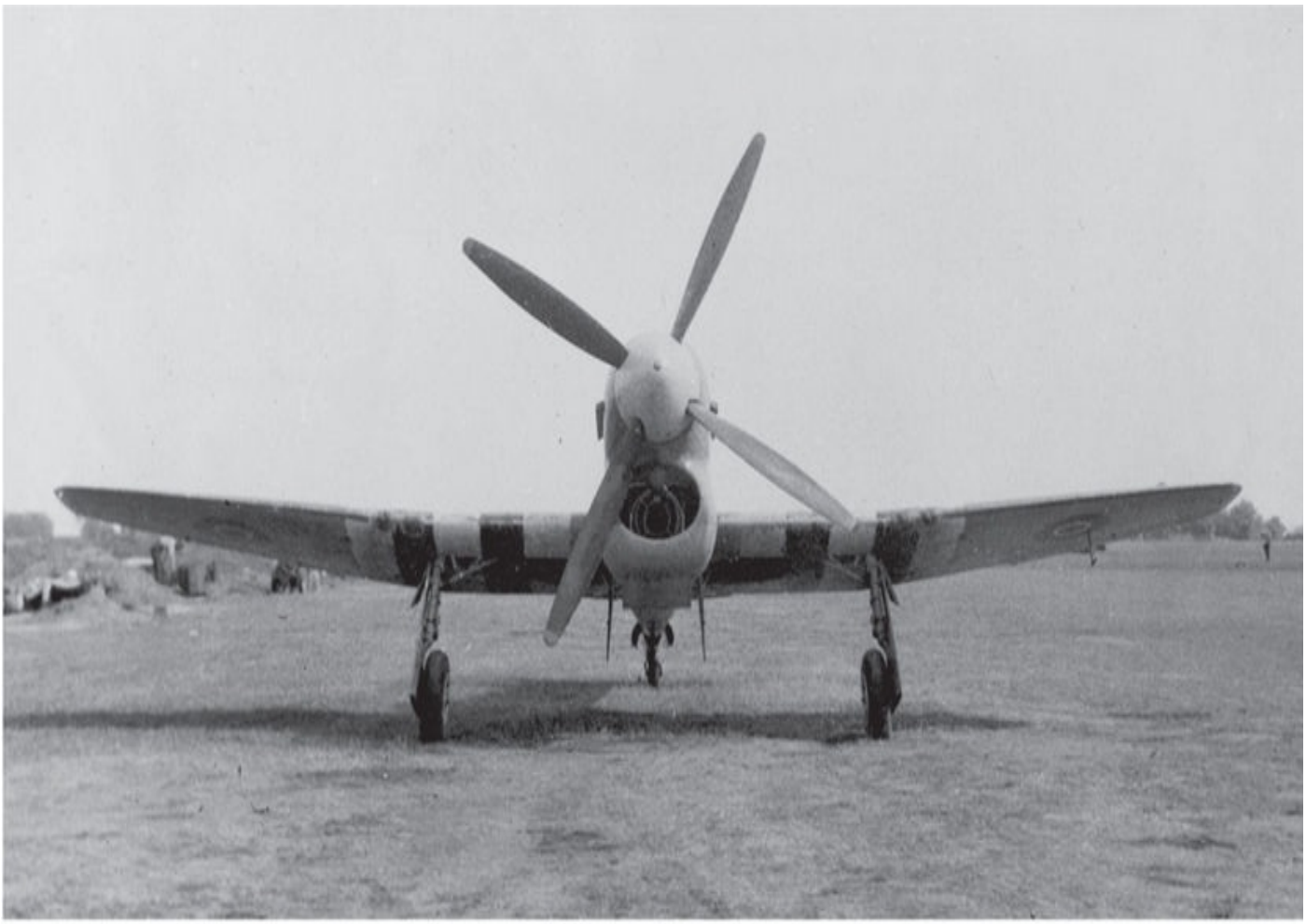
only items that could be removed from the Tempests were the debris guards in their intakes, but these were deemed necessary when operating from an ALG. However, this and further visits by the RAE found that in most cases the fighters of all types engaged in anti-'Diver' operations were not having their surfaces prepared in the most beneficial ways, as recommended, mainly due to the constant use of the aircraft and shortage of suitable materials. Newchurch was visited again on 24 August, and Aircraft Finishers who had been posted in were questioned on their work and supplied with missing materials.

The RAE also supported trials of fighter types completely stripped of paint. It was not believed that this would lead to much, if any, increase in speed, but it would make maintenance a far easier option and if the flying surfaces in particular were kept in good condition performance would be enhanced. Painted surfaces were not easily maintained in the field when aircraft regularly flew through V1 explosions, operated from rough strips and were refuelled and rearmed at hectic pace. Eventually, a pair of Tempests were stripped of paint by No 3501 Servicing Echelon at Cranfield in Bedfordshire and issued to the Fighter Interception Unit (FIU), which then handed them over to No 501 Sqn. However, by the time the extended trial was complete the drive to squeeze every ounce of performance from the Tempest was no longer a priority, and no further aircraft were stripped. 'Naked' Tempests would make a brief appearance post-war, however (see following chapters).

THE FIU ARRIVES AT NEWCHURCH

In addition to the RAE visit, a new Tempest unit arrived at Newchurch on 24 June. This was a detachment from the FIU tasked with developing nightfighting tactics against the V1. Equipped with six aircraft, the unit was unable to begin operations until the night of 28 June because of unsuitable weather. That evening, the CO, Sqn Ldr E G 'Tubby' Daniel (a former Malta nightfighter ace), and Flt Lt Joe Berry (also a successful nightfighter pilot) each destroyed two 'Divers'.

Not surprisingly, the risks associated with anti-'Diver' night operations proved to be even greater than those endured by day. Sqn Ldr Daniel would only have time to add two more to his score before he was lost attempting to bail out at night at 1500 ft over the Channel following an engine failure on 5 July – he was not found. On the night of 16/17 July, Flt Lt Alan Wagner (another of the FIU's nightfighter aces) flew into high ground in bad weather and was killed. The following night Wg Cdr C H Hartley, CO of the FIU, collided with a Mosquito as they both closed in on the same target. Hartley successfully bailed out of EJ530 but broke his ankle so badly on landing that he did not fly for eight months. The Mosquito crew perished.



US P
JN875

One of No 56 Sqn's first Tempests, JN875/US-P, assigned to Flt Lt P Bateman-Jones, is seen here shortly after its delivery with full, drag-inducing stripes and later when stripped for anti-'Diver' operations (*P Bateman-Jones family via M Goodman*)

Despite the risks, the FIU kept flying, even in atrocious weather, and Joe Berry set a record for the number of 'Divers' shot down in a single night (or day) when he accounted for seven during the hours of darkness of 23/24 July – he was to add four more on the 25th. During the early hours of the 29th Berry closed to within 100 ft of one over West Malling airfield, in Kent, in order to destroy the V1 before it fell on the base below. The resulting explosion damaged his Tempest. Despite this gallant effort Berry was obliged by authorities to share his success with a Mosquito crew who had fired from a distance of 1000 yards and, according to the FIU, 'missed hopelessly'! On 28 July, one month after commencing operations against the 'Divers', the FIU score had reached 50, of which no fewer than 36.5 were the work of one man – Flt Lt Joseph Berry! He would continue at this incredible rate, knocking down four or five in a night on several occasions.

On 24 June the FIU had begun trials with 'Monica'. This was the code name for the tail-warning device that had been fitted to RAF bombers until it was discovered that it was also being used as a homing signal for Luftwaffe nightfighters. Now it was thought the equipment (AN/APS 13 to give it its full title which weighed only 25 lb and was easily mounted in the Tempest cockpit, with a single dipole aerial on the wingtip) could be used as a range indicator at night. Trials proved the system worked, and that it was ideal for use in a single-seater. However, a major flaw was that at 1500 ft and below the range indicator light was lit by ground signals. As many 'Divers' flew at this height or below, it meant the device was of little use and it was not adopted. The pilots were left having to rely on their own skill and judgement.

A THIRD TEMPEST SQAUDRON

24 June 1944 was a red-letter day for No 56 Sqn – Tempests at last! While equipped with the Spitfire LF IX, the unit had been engaged in convoy patrols, weather 'recces' and occasional escort missions, although it had also managed to claim two 'Divers' in the course of these duties. Now, following a brief period of familiarisation, the squadron joined the other Newchurch units in anti-'Diver' patrols. On the second day of its new task the squadron's first claim was made by Flt Lt 'Digger' Cotes-Preedy, a pilot of great experience on Typhoons, beginning with No 609 Sqn in 1942. He had then been seconded to Gloster as a test pilot, followed by spells on operations with Nos 193 and 263 Sqns (Cotes-Preedy helped the latter unit's conversion from Whirlwinds to Typhoons) and more test pilot work with Napier. He would later command No 3 Sqn.

By now the bombs were arriving at a rate of 100 to 150 per day, and the defences were at full stretch. Pairs of Tempests were taking off throughout the day and sometimes at night, each squadron averaging 30 or 40 sorties each day and sometimes as many as 60. If uneventful, a patrol could last up to an hour-and-a-half, but many were cut short after pilots had expended all of their ammunition or an aircraft had suffered damage from an exploding V1 – there was always a group of scorched Tempests awaiting attention from the hard-pressed groundcrews at Newchurch.

Hardly typical (as many patrols went unrewarded) is the following report from Belgian

pilot Flt Lt Remi van Lierde and American Plt Off ‘Buck’ Feldman of No 3 Sqn, who took off on a patrol at 2100 hrs on 4 July. Their account gives some idea of the frantic activity and risk that could quickly develop once aloft. It is reproduced as written by the No 3 Sqn’s Intelligence Officer, including original punctuation and abbreviations (as are all quotes from wartime sources in this work). Note the remarks about the Spitfire, no doubt intended to ward off a potential ‘claim jumper’;

Standing under the nose of his Tempest V Series 2 JN862/JF-Z, Belgian Flt Lt Remi van Lierde was No 3 Sqn's 'B' Flight commander and the Allied top scorer against V1s by day – he was credited with the destruction of 34 plus a further 13 shared. Although not known for certain, it is believed that the stripes on his Tempest's spinner were in the Belgian national colours (*H J Bailey via A Lamb*)

'F/Lt Van Lierde was put on to a diver by Beachy Hd C.H.L. 10 m S of Bexhill 2500 ft, 350 deg and 400 IAS. He closed and attacked from 300 yds with 2 1-sec bursts and the diver went down steeply, exploding in a field 12m N of Beachy Hd at 21.08. Saw a second S of Hastings at 2000ft, 300 IAS and 340 deg. Closed to 200 yds fired several bursts from dead astern and the diver went down and exploded in the sea 4 m S of Hastings at 21.30hrs. Saw a third without control at 1500 ft 34(0) deg 320 IAS. Closed to 150 yds and gave a 2 sec burst and the diver burst into flames, pulled up in front of the Tempest and went into the sea without exploding skated off, rose to 150 ft then went straight down and exploded about 4 m S of Hastings at 21.45hrs. Saw a fourth on ROC Flares between Hastings and Bexhill at 3000ft 340 IAS, closed to 200 yds and gave a 2 sec burst and overshot with all ammo exhausted. Called for assistance but as another Tempest was closing. The diver heeled over and went straight in, exploding on the ground 15 m N of Hastings at 21.52.

'Just before F/Lt Van Lierde overshot he saw much flame from the jet and the diver had slowed with flames coming from the port side of the fuselage. Spitfire had come down at high speed and overshot without firing. This was witnessed by No 2 P.O. Feldman who shortly afterwards saw a diver 20m S of Rye at 2000ft 320 IAS 320 degrees. Closed to 400 yds and fired two short burst from dead astern with strikes. Then closed to 200 yds and gave a further two bursts. The jet flickered and the diver went down, exploding in the sea 10 m S of Rye at 21.55. Another Diver was seen S of Hastings at 2500ft 330 deg 300 IAS. Overtook rapidly and gave a short burst from 300 yds, saw strikes and smoke came from the jet and the diver slowed perceptibly. Closed to 100 yds and gave a 3 sec burst with strikes on the wing and fuselage. The diver exploded in the air and war-head exploded on the ground 3-5 miles N of Hastings at 21.57.'

They landed at 2208 hrs – 68 minutes in the air and 50 minutes of hectic action! Van Lierde was indeed credited with the destruction of four 'Divers' in this sortie, but 'Buck' Feldman was only awarded 1.5, sharing the second with fellow Tempest pilot Flt Sgt L G Everson. His four claims, and one earlier that same day, took van Lierde's total 'Diver' tally to 13 destroyed and five shared. Despite finishing his involvement in the anti-'Diver' campaign on 20 August when he was posted to command No 164 Sqn, van Lierde would become the top scorer by day, credited with 35 solo and 13 shared V1s destroyed.

Pilots of No 3 Sqn's 'B' Flight at readiness at Newchurch circa July 1944. They are, from left to right, Flg Off M F 'Eddie' Edwards, Flt Lt Remi van Lierde and Flt Sgts D M 'Jock' Smith, Maurice Rose and D J 'Mack' Mackerras. The latter was killed on 6 August 1944 when his Tempest was seen to spin into the ground while on anti-Diver patrol. 'Eddie' Edwards would be killed in action some five months later (*H J Bailey via A Lamb*)

DEFENCE ORGANISATION

Overall defence tactics had been planned before the onslaught and comprised fighter patrol areas over the Channel, the south coast and up to the gun belt that extended from mid Kent almost to the southern London suburbs. The final line of defence was an array of barrage balloons. In charge of the whole operation was Air Vice-Marshal Sir Roderic Hill, who gained much credibility from his insistence on flying many patrols in his personal Tempest. There were complex rules, dependant on meteorological conditions, as to whether fighters or guns had access to their normally allocated airspace. However, in the heat of battle there were inevitably cases when the two forces clashed, unfortunately in some instances with fatal results.

Flg Off George Kosh of No 3 Sqn lights up a cigarette while on ‘standby’ at Newchurch. He would be killed in action on 1 July 1944, possibly a victim of Allied anti-aircraft fire (*H J Bailey via A Lamb*)

On 28 June No 486 Sqn’s Flg Off S S Williams had a near escape when his Tempest was hit by ‘friendly fire’. However, on the same patrol Flt Sgt R J ‘Joe’ Wright became the first fatality among the Tempest pilots when he crashed north of Beachy Head. Although his demise was put down to debris from a V1 explosion, he was also reported to have been under fire. Three days later No 3 Sqn’s Flg Off George Kosh crashed at high speed after chasing a V1 into cloud – ‘loss of control’ was mooted but rumour blamed the guns for his death. More certainly a victim of the guns was Flt Sgt S Domanski of No 3 Sqn who, on 3 July, was shot down despite flying in an ‘unrestricted area’ above cloud. He crashed and died on farmland near Playden, in East Sussex. Air Vice-Marshal Hill expended much effort in calming tempers and improving coordination following these incidents.

Down on the farm – pilots of No 486 Sqn relax between sorties in their dispersal area at Wills Farm on Newchurch ALG. The painted area on the end of the shepherd's hut serves as an 'ops' board, listing pilots and allocated aircraft for the day. It is topped by 'Pink Section' (*RNZAF*)

On 3 July No 486 Sqn's Flg Off W L Miller was forced to abandon his Tempest when the engine failed in poor visibility. The canopy refused to jettison so he had to wind it back, which must have seemed an agonisingly slow process, but he bailed out safely. Miller suffered a bruised shoulder from the parachute harness and a sprained ankle after he landed on a fence. A local doctor attended to his injuries and sent him a bill for one guinea! Two days later WO 'Jimmy' Sheddan (who would later command No 486 Sqn) was brought down by another pilot's shell case after it was ingested by his Tempest's yawning radiator intake, causing enough damage to drain the engine of oil and/or coolant and seize. He was left with no option but to make a forced landing in a wooded area near Battle, in East Sussex, Sheddan being extremely lucky to survive, albeit severely battered and bruised after apparently having been thrown clear as his Tempest disintegrated. To add insult to injury, the shell case seemed to have come from his wing commander's aircraft, as Beamont also claimed a share of the 'Diver' that Sheddan was convinced he had already despatched!

One week later, on 10 July, a conference concluded that when guns were operating fighters should be excluded from their area and would enter it at their own risk. This decision had been reached following much thought by Air Vice-Marshal Hill on the possible reorganisation of the defences in order to improve their efficiency in defending the southeast from the V1 threat and to eradicate the clashes between guns and fighters.

Deputy Senior Air Staff Officer at ADGB, Air Vice-Marshal G H Ambler, was tasked with writing the appropriate orders, but in doing so he came to the conclusion that the guns would be more effective if deployed along the coast. Sir Robert Watson-Watt, inventor of radar and the British Government's Telecommunications Scientific Adviser, had made a study of the problem with results along similar lines. Accepting their findings, Air Vice-Marshal Hill issued an instruction on 15 July, which took effect two days later, moving the gun belt to the coast (it extended 10,000 yards out to sea, 5000 yards inland and up to an altitude of 10,000 ft altitude). Although fighters were excluded from this area, they could patrol over the Channel outside the belt and in the large area between the gun belt and the balloon barrage on London's southeastern outskirts.

The German Flak Regiments rather decently seemed to reduce their launchings on 17 July while the defences accustomed themselves to the new arrangements. Despite regular patrols there were no interceptions by any Allied fighters that day, and on the 18th there were 17 successes (by all types, nine by Tempests) during the day. The fighters' scoring rates soon resumed their pre-reorganisation rates. Indeed, on 22 July fighters claimed no fewer than 60 flying bombs, only two less than the all-time high of 62 during the day of 12 July. The gunners thrived on the new arrangements, and with the introduction of proximity fuses and radar gun-laying their success rate trebled over the next two months.

WO W A ‘Wacky’ Kalka of No 486 Sqn usually flew SA-M, and his second Tempest (EJ560) so marked is seen here at Newchurch, soon after having arrived on 27 July 1944. Kalka claimed one of his eight V1s destroyed in this aircraft, but it only lasted four weeks, as it was badly damaged in a forced landing following an engine failure on takeoff on 23 August (*Kalka family via P Sortehaug*)

Not all units benefited, however, after reorganisation of the defences – No 486 Sqn was allocated a patrol line behind the guns, and thanks to the new efficiency of the gun-laying radar, targets for the New Zealanders became relatively scarce.

SECOND TEMPEST WING

With technical problems under control, the flow of Tempests from Hawker’s Langley factory allowed the formation of further squadrons. Although the original recommendation

had been that Typhoon units should be re-equipped, these were all now fully occupied in the fighter-bomber role supporting the British and Canadian Armies in Normandy. Accordingly, on 29 July, No 501 Sqn at RAF Westhampnett (now Goodwood) in West Sussex received a full complement of Tempests in a single day, replacing its ageing Spitfire VBs. Non-operational for a week in order to become familiar with its new mount, the unit moved to Manston on 2 August and immediately began flying anti-'Diver' patrols.

Meanwhile, further moves were afoot. The FIU detachment left Newchurch for Manston on 3 August, where it was absorbed by No 501 Sqn – the latter had now been earmarked for anti-'Diver' operations by night. The doyen of such operations, Joe Berry, was appointed as the new CO. Sixteen of the original pilots from No 501 were then posted to No 274 Sqn (a Spitfire unit that had returned from North Africa and Italy in the spring) at West Malling, allowing a number of pilots, including the CO, desert ace Sqn Ldr J F Edwards, to be posted out 'tour-expired'. On the 7th, Tempests began arriving, swiftly replacing No 274 Sqn's Spitfire IXs. Five days later the unit started flying anti-'Diver' patrols – it made its first victory claim on 15 August.

Before No 274 Sqn left West Malling for Manston, the unit had loaned its new Tempests to No 80 Sqn to allow each of its pilots a single trip. No 80 Sqn, a Spitfire IX unit also returned from the Mediterranean, was next in line for the Tempest. The squadron began flying its own examples on 25 August, mounting operational patrols from the following day. In what would become a familiar story as units converted from petite and nimble Spitfires, the commanding officer of No 80 Sqn, New Zealander Sqn Ldr Bob Spurdle, wrote in his biography;

'They seemed huge after our dainty Spitfires. But could they go! We found that they cruised almost 100 mph faster than the Spits, climbed liked rockets and dived at incredible speeds. They were magnificent gun platforms and, apart from a slight tendency to swing on takeoff, had no real vices. We were delighted'.

There were now three Tempest squadrons at Manston, and Wg Cdr John Wray was appointed as Wing Commander Flying. Wray was an appropriate choice for, as well as Whirlwind, Hurricane fighter-bomber and Typhoon experience, he had nightfighter tours under his belt.

'DIVERS' DWINDLE

In September the rate of 'Diver' arrivals dipped and the success rate of the guns rose to an impressive 80 percent. Accordingly, on 7 September, the Manston Wing was ordered to cease patrols and instead maintain three sections on 'dispersal standby'. After three days of inactivity Wray decided the Manston Tempest squadrons had to seek new targets, and on 10 September he led the two daylight Tempest units in an attack on Leeuwarden airfield in Holland. The 16 Tempests crossed the North Sea at low level and Sqn Ldr Spurdle later recorded;

'Nearing Texel we climbed steeply and crossed the island at about 14,000 ft. Below, on our starboard, was the long causeway across the Zuider Zee which "pointed" almost directly at the big airfield.

'With the target in sight, 80 peeled down in a screaming dive with each flight of four

aircraft almost in line abreast. “Drop tanks!” and the auxiliary fuel tanks tumbled away. Some heavy flak opened up but far too high and, as our altimeters unwound and we neared 4000 ft, we were doing over 450 mph. Light flak started to stream up at us from dozens of positions but, excited in action, we ignored it and rapidly scanned the airfield perimeter and around tarmac and hangars for enemy aircraft.’

Visible on the airfield were six Bf 109s that had just returned to base – these were attacked and at least two were seen to be hit, as was a twin-engined aircraft on the edge of the airfield. A bowser also went up in flames, and gun positions and hangars were hosed with 20 mm cannon-fire. Many of the Tempests suffered minor damage from the flak, but one was more seriously hit and Flt Lt J A Malloy of No 274 Sqn was forced to ditch in the North Sea. He was fortunate to be quickly picked up by an ASR launch.

The Newchurch squadrons also abandoned anti-‘Diver’ patrols and began a series of armed reconnaissance operations over Holland, sometimes searching for ‘Big Ben’ (V2) targets. Once a V2 rocket was launched there was no defence that could prevent its supersonic descent onto the target. The only countermeasures that could be taken were to seek out and destroy their supply lines, storage areas and launch sites. These proved elusive, but on 13 September a wing operation was laid on with the object of destroying V2 launching sites north of Den Haag. The target was amongst dense woodland and identified only by coordinates. Little could be seen, but the area was duly strafed, causing a massive explosion that indicated the accuracy of the attack. Unfortunately, No 3 Sqn’s new CO, Sqn Ldr Kenneth Wigglesworth, had apparently hit a V2 that was about to be launched. His aircraft was engulfed by the shock wave generated by the ensuing explosion, the Tempest flipping over and diving straight into the ground.

Scoreboards proclaiming ‘Divers’ destroyed sometimes indicated the number of victims credited to a particular aircraft, rather than pilot, although in this case (on EJ558/SD-R of No 501 Sqn) they may relate to V1s claimed by Flt Off ‘Bud’

Miller while flying Tempests (*via A J Cranston*)

The Manston Wing continued to operate over Holland most days for the rest of September, seeking out enemy transport or ‘Big Ben’ launch sites. On the 17th the wing took part in Operation *Market Garden*, providing anti-flak support by shooting up German flak positions on the airborne forces’ route to Arnhem.

Manston’s other Tempest unit, No 501 Sqn, flew nightly patrols when the weather allowed it. Although many were uneventful, six V1s were shot down during the month – one had to be shared with a Mosquito. On 23 September the squadron moved to Bradwell Bay, where it was well positioned to counter V1s air-launched from He 111s flying over the North Sea. No 501 Sqn would subsequently remain in the UK while the other Tempest units joined 2nd TAF. Before dawn on 2 October three of No 501 Sqn’s Tempests set of on an ambitious ‘Ranger’ mission to Rheine (a hot target for 2nd TAF Tempests – see next chapter), in Germany. It would result in the unit suffering a bitter blow when Sqn Ldr Berry’s EJ600/SD-F was hit by fire from a light flak position near the German radar station at Veendam while traversing northern Holland at 50 ft. Unable to gain sufficient height in order to bail out, Berry crashed. Two locals pulled the RAF’s top V1 killer from the burning wreckage of his Tempest but he was already dead.

Trade picked up in October, with No 501 Sqn accounting for 23 ‘Divers’, followed by 12 in November, eight in December and a single flying bomb in January 1945. Flt Lt Jimmy Grottick claimed the last of more than 80 credited to the unit in the early hours of 27 March 1945, later describing the event as follows;

‘That evening I had been assigned to cockpit readiness, which meant that one took to one’s cockpit, strapped in and was “listening out” on the radio. At 0235 hrs I was ordered to scramble, and soon after takeoff I was vectored roughly southwest and began to climb. It was a clear night, but without a moon. It wasn’t long before I could see the jet light of a V1 at about 1000 ft and travelling very, very fast. It was some distance ahead and about two miles off to the port side. I turned towards it and eventually came in through a 180-degree approach – I recollect that at the bottom of my dive and on the final approach I was clocking 580 mph! I allowed the distance to decrease, throttling back as I came into range, and then at about 300 yards down to about 200 yards I opened fire with a three-to four-second burst. There were immediate strikes and then the flames feathered, the gyro obviously toppled and the intruder veered off course and dived into the ground near North Weald.’

Flt Lt A J Grottick of No 501 Sqn was flying this aircraft, EJ599/SD-W, when he made the Tempest's last 'Diver' claim

on 27 March 1945 (*via T Buttler*)

The long battle between the Tempest and the ‘Flak Target Apparatus’ was over. So how had squadrons equipped with the fighter performed? It is difficult to pin down precise figures, as claims were frequently adjusted and no ultimate official record seems to have been determined. However, the lowest figures among those located are listed here, as criteria used in compiling other published figures, or those noted in, for example, unit Operations Record Books (ORBs), is not known. What is certain is that the Tempest shot down more V1s than any other Allied type.

UNIT	TOTAL NUMBER OF V1s DESTROYED
No 3 Sqn	288
No 56 Sqn	70
No 274 Sqn	15
No 486 Sqn	223
No 501 Sqn	82
FIU	84
No 150 Wing	32 (Wg Cdr R P Beamont)

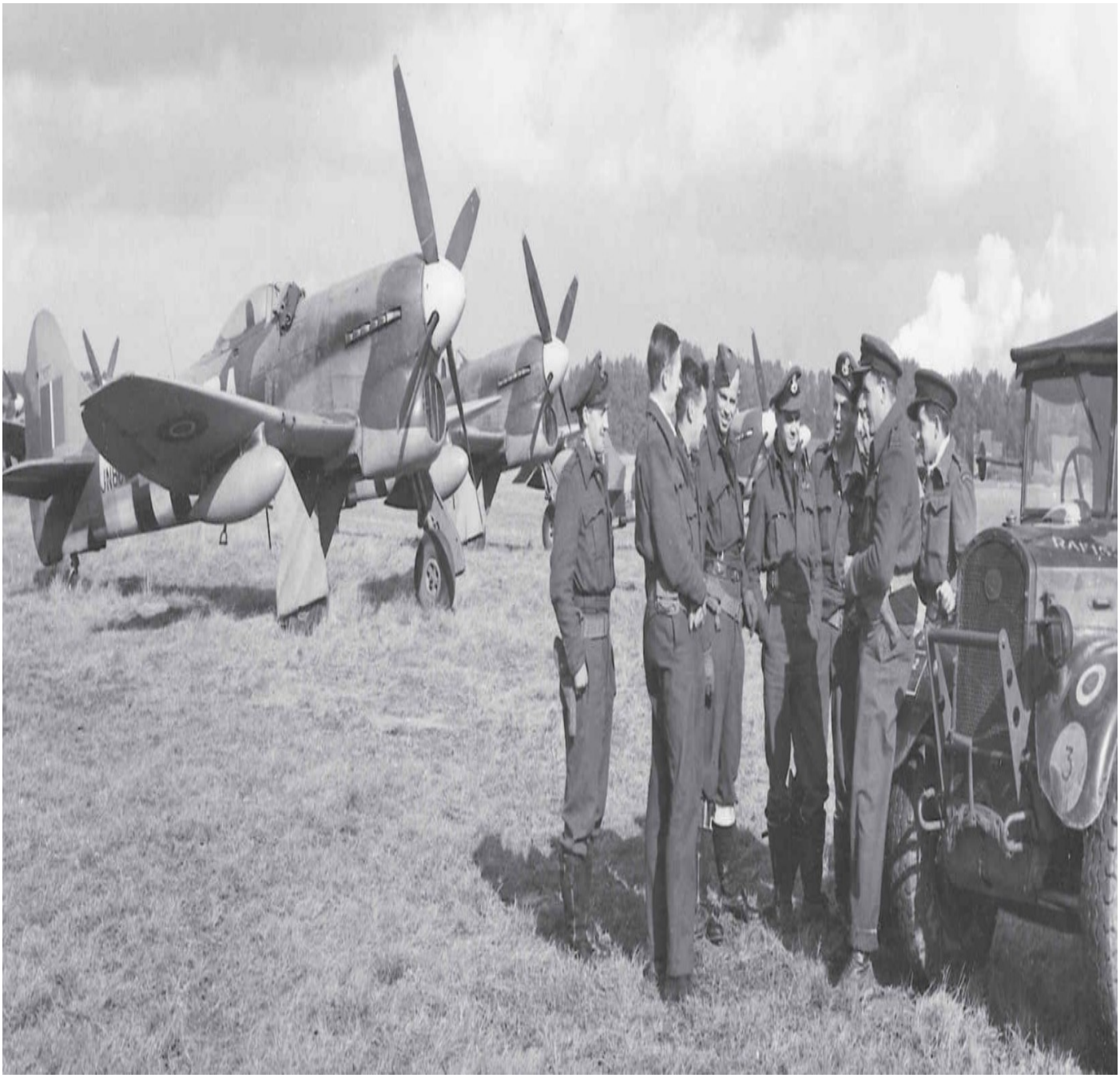
No 80 Sqn had become operational only a week or so before the main bombardment ceased and its patrols had proven fruitless

There was of course a price to pay. Ten Tempest pilots had lost their lives during the campaign and no less than 31 aircraft had been written off in the course of anti-‘Diver’ operations. At least 13 of the latter had been due to engine failures – how great a part +11 boost and 150 octane fuel played in these losses remains obscure. For detailed listings of the most successful individual pilots flying Tempests and the other types involved, the reader is referred to *Osprey Aircraft of the Aces 113 – V1 Flying Bomb Aces*.

CHAPTER THREE

TEMPEST JOINS ‘SECOND TAF’

By mid-September 1944 German forces had retreated from France and Belgium but were still occupying much of the Low Countries. At Newchurch the Tempests were now too far from the action, and on 19 September No 150 Wing HQ moved to Matlaske in Norfolk, although the Tempests’ arrival there was delayed by weather for four days. A few operations were flown from here, including No 3 Sqn providing a fighter escort for USAAF Liberators, During the course of this mission Flg Off W Davies was lost when he crashed in the sea 70 miles off Great Yarmouth following an engine fire.



Sqn Ldr J H Iremonger (leaning on the truck) and pilots of No 486 Sqn shortly after their arrival at B60 Grimbergen, near Brussels, on 28 September 1944. Three days later they would move on to B80 Volkel, in Holland, their base for the winter of 1944/45. The nearest Tempest is JN803/SA-D, which carried 26 V1 kill markings below the windscreen (*RNZAF*)

The Tempest pilots had been eagerly anticipating the move, which took place on 28 September. Many hoped that it would at last bring the opportunity for aerial combat. No 122 Wing, home to three RAF Mustang squadrons, was now based in Belgium at B60 Grimbergen following a successful campaign in Normandy. Escorts for Bomber Command's daylight raids were required and the Mustangs, with their long-range capability, were ideal for the job. Not only that, their radius of action was such that it enabled the missions to be flown from the UK. Accordingly, an exchange took place, with the Mustangs flying to Matlaske to join No 150 Wing (which would remain in ADGB) and Nos 3, 56 and 486 Sqns taking their place at B60. Now the Tempest pilots would have a chance to pit their mounts against machines with pilots at the controls.

The first engagements took place less than 24 hours after the units had landed on Belgian soil. While providing fighter cover over Arnhem, Nijmegen and Eindhoven, where Operation *Market Garden* was reaching its climax, No 56 Sqn opened its Tempest air combat account when Sqn Ldr 'Digger' Cotes-Preedy, leading a patrol south of Nijmegen, was directed east and sighted Spitfires fighting with at least 20 Fw 190s. Cotes-Preedy followed one Focke-Wulf that was diving away from the melee towards thin cloud. It soon fell to the Tempest's fire. Meanwhile, Canadian pilot Flg Off David Ness (a name that would routinely crop up on combat reports during the final months of the conflict in Europe) claimed two shot down – one as it also tried to dive away and the other after a four-minute turning contest during which Ness saw several strikes before the pilot bailed out. Flt Lt A R Moore (who, following his successes in the anti-'Diver' campaign had transferred to No 56 Sqn as a flight commander) added another, and with two 'probables' and one damaged also credited to the Tempest pilots, this was an excellent start to their continental campaign. This clash also confirmed the Tempest's expected superiority over the Fw 190.

Meanwhile, two of the Manston-based Tempest units, Nos 80 and 274 Sqns, had initially moved to Coltishall, in Norfolk, and then on to B70 Antwerp/Deurne and B82 Grave, respectively, where they joined the Spitfire-equipped No 125 Wing based at these sites on 1 October – space was at a premium on the crowded 2nd TAF airfields. The next day No 274 Sqn was 'greeted' at B82 by a visit from an Me 262, which was a type the Tempest pilots would soon know all too well. The jet dropped a single bomb that killed the wing adjutant and a cook, as well as injuring several others. From B82 the Tempest squadrons would fly defensive patrols and armed reconnaissance missions for a week before moving again. As noted in the previous chapter, the third Manston Tempest unit, No 501 Sqn, would remain in the UK to provide the main air defence against air-launched V1s.

On 1 October No 122 Wing had also been on the move, to B80 Volkel, the most advanced base on Dutch soil. Recently vacated by the Luftwaffe, it would be home to No 122 Wing for nearly six months and would be shared with No 121 Wing, which comprised four rocket-firing Typhoon squadrons. This was a new and much harsher environment for the Tempests, with little available in the way of shelter on the wrecked former enemy airfield. The onset of winter did nothing to improve the Sabre engines' temperament, and a regime of starting them up every four hours through the night was standard procedure. Careful handing on the ground was also required, as recorded in these excerpts from a summary of Air Fighting Tactics published by the Central Fighter Establishment post-war;

No 274 Sqn pilots in October 1944. In the centre front (with his hands together) is Sqn Ldr J R Heap, who would be killed in a crash following engine failure on takeoff a few weeks later. At the far left of the front row is Flt Lt D C Fairbanks, who would become the top-scoring Tempest ace with 12 confirmed victories. He later became CO of the squadron. Far right in the front row is Flt Lt R B Cole, who would later command No 3 Sqn (*J P Davis*)

'The Tempest proved to be a temperamental starter at the best of times so that for a sortie of eight aircraft, a spare was always briefed. It is difficult to taxi on account of the necessity to maintain sufficient revolutions to prevent or reduce rough running and at the same time to swing the nose for forward vision. Adequate time had to be allowed between "press buttons" and actual takeoff, as frequent runs-up to 3000 rpm were necessary in order to ensure a safe takeoff.

'It was essential to run engines up to 3,000 rpm immediately prior to takeoff until all signs of oil smoke had vanished from the exhausts. Failure to do this after five or ten minutes ground running often ended up with engines cutting completely on opening up.'

The split arrangement of Tempest units lasted only a week, with Nos 80 and 274 Sqns joining No 122 Wing at Volkel on 7 October. The five-squadron wing was under the command of New Zealander Grp Capt Patrick Jameson, who had cut his air combat teeth in Norway in 1940 and had subsequently been a successful Spitfire wing leader.

During that first week of October the wing had again been successful in the air when, on the 2nd, Wg Cdr Beamont had made what would be his last claim of the war. Demonstrating the Tempest's unmatched capabilities when diving, he chased an Fw 190 and opened fire when flying at 510 mph IAS. Beamont registered hits immediately, causing the Fw 190 to nose over past the vertical and continue down until it hit the ground near Kleve, on the German border with Holland. More ominously, an Me 262 was seen shortly thereafter, but it was soon beyond reach.

Later that same day a No 486 Sqn patrol sighted three of the German jets, which jettisoned their bombs and streaked off into the distance. Despite a flat-out chase the Tempests could get no nearer than 1000 yards. Catching the jets (or 'rats' as they soon became known) was going to require some thought on tactics. The chase after the Me 262s had left the New Zealanders' formation short of fuel, and Tempest EJ693/SA- I, flown by Plt Off B M Hall, was forced to make a wheels-up landing two miles short of base. Hall made a good job of the landing and was uninjured. When recovered to No 151 Repair Unit, his Tempest, although apparently in good shape, was judged beyond economic repair but was serviceable enough to be retained by that unit as an engine test-bed. The airframe was eventually donated to a technical Institute in Delft, in the Netherlands, where it was in use to demonstrate stress testing to the students for many years. Somehow the fuselage survived, and today it is the largest section of an operational Tempest V in existence. It forms the basis of warbird collector Kermit Weeks' ambitious restoration project.

Issued to No 486 Sqn just before its departure for the Continent, Tempest V EJ712/SA-T, photographed at Volkel in early October 1944, displays newly-applied 'D-Day stripes' under the fuselage – the only position in which they were now required. By then the stripes were being applied in smooth paint rather than the original distemper (*via A J Cranston*)

Other sorties during the week included sweeps where a number of trains were attacked,

with all three squadrons making claims. No 486 Sqn was credited with no fewer than six trains on 6 October, albeit at a most unwelcome cost. Plt Off R J Cammock, one of the top scorers against the 'Divers' with 20 destroyed, was hit by flak and crashed into a train as he completed his attack. He was the third pilot to have fallen to flak in the brief time the Tempests had been based on the Continent – yet another sign of things to come. Far more Tempest pilots would be lost to this cause than in aerial combat. After shooting down 'Flak Targets' all summer, they were now themselves 'flak targets'.

Frequent raids by small formations of KG(J) 51's Me 262s kept the Tempests tied down to defensive patrols for much of the last three months of 1944. Probably photographed at Achmer, 1. *Staffel*'s 9K+YH has the *staffel* colour (white) on its

nose and tail tips and is fitted with two ETC 503 bomb carriers (*via A S Thomas/J Weal*)

A further operation in this period was to supply fighter escorts for the resident Typhoon wing during an RP attack on Rheine airfield – both the duty and the location would become familiar in the following months. Rheine was the home of *Kommando Schenk* and 3./KG(J) 51 (the former merging into the latter during the month), operators of the troublesome Me 262 bombers and, although yet unseen by Allied fighters, the Arado Ar 234 reconnaissance jets of *Kommando Sperling*.

No 56 Sqn again clashed with Fw 190s on 6 October, adding two more to its scoreboard. After taking off for a sweep, eight Tempests had immediately been vectored onto a group of around 30 Focke-Wulfs under attack from Spitfires at 20,000 ft. When two Fw 190s broke away from the dogfight and dived for the deck, a pair Tempests latched onto them and, 'clocking' up to 530 mph IAS, overhauled the German fighters in a ten-mile chase. Once under fire the Fw 190s 'broke', but a Tempest followed each one and they were swiftly despatched.

WING COMMANDER DOWN

By 12 October the No 122 Wing Commander Operations, Wg Cdr Roland 'Bee' Beamont, was tour-expired and his replacement had already arrived. Unfortunately, 'Bee' was determined to complete one last sortie, despite this desire having proved fatal to other pilots on a number of occasions. At 1455 hrs he was airborne from Volkel at the head of eight No 3 Sqn Tempests, and in the Rheine area a stationary train was spotted with a locomotive at each end and no less than 18 coaches between them. The latter started spewing out troops when the Tempests appeared overhead, the eight fighters strafing the train from end to end. With little, if any, flak apparent, they were led by the wing commander in a second attack, thus breaking his own rule that he had reinforced at the briefing – 'only one attack'. One of the engines exploded and, totally out of character, Beamont broke his own rule again. Out of ammunition himself, he led the Tempests still with firepower back in for a third time.

Some accounts that describe this action state that a flak wagon opened up this time, and there was also a hail of small arms fire put up by the surviving troops. Tempest EJ710/JF-L (Beamont's own 'RPB' was under repair) was hit in the radiator, and with glycol streaming and engine temperature soaring, 'Bee' was forced to put the Tempest down well inside enemy territory. Soon captured, he spent the rest of the war as a PoW. In peacetime, after renewing his acquaintance with the Tempest (at Chilbolton, in Hampshire – see Chapter Four), Beamont forged a career as a test pilot, with first flights of the Canberra, Lightning, TSR 2 and Multi-Role Combat Aircraft (Tornado) to his credit.

W2 X

Tempest V EJ705 was delivered to No 80 Sqn shortly before it left the UK to join 2nd TAF, the fighter being coded W2-X. Adopted by a group of RAAF pilots serving with the unit, it was decorated with an appropriate emblem – a kangaroo carrying an Australian flag – just visible in front of the windscreen. EJ705 served with the squadron until 11 March 1945, when it was badly damaged by an engine fire on start-up (*AWM*)

The morning after No 122 Wing lost its Wing Commander Operations, the Tempest units at last enjoyed success against the elusive Me 262. Standing patrols had now been established to counter KG(J) 51's efforts, and on one of these No 3 Sqn's Plt Off Bob Cole, warned by the adjacent sector that a intruder was heading his way at 14,000 ft, sighted a vapour trail approaching rapidly slightly above him. Identifying it as an Me 262, he engaged the jet as described in his combat report;

'I pulled up, and fired two long bursts head on as it passed 100 ft over me. I was caught in the slipstream, stuck my nose down, recovered, turned 180 degrees and gave chase. I was doing about 480 [mph] in a slight dive, and found the Hun was pulling away slightly. He continued the slight dive for some miles and then suddenly climbed vertically about 800 ft, then levelled out again. This climb did not appear to affect his speed. I continued on a straight course and began turning right. Luckily the Hun also turned right and I closed a little.

'I went on with the pursuit, without my No 2, and after some miles saw a fair quantity of dark grey smoke from both jets, and what may have been a stab of flame from the right-hand one. The smoke lasted about five seconds and then disappeared. The enemy aircraft continued on a straight and level course, losing height very slightly. In all I followed him I think for about 40 miles when he slowed up a little and I overtook him. I was slightly below him [at 10,000 ft], and I believe he thought he had shaken me off. I closed in to about 500 yards and fired one short burst, dead astern, which missed. I closed in to about 150 yards, still dead astern, and fired another short burst. The enemy aircraft immediately exploded just as a doodlebug does, and many pieces flew off, including what looked like a plank six feet long. I broke to avoid this, and by the time I had turned again the pilot was in his open parachute and the aircraft was doing a gentle spin, still appearing to be nearly intact.'

Flt Lt Art Seager of No 80 Sqn almost repeated the success that afternoon when he was able to approach an Me 262 unobserved. He made two attacks, and saw strikes for certain on the second, before the jet was able to pull away.

Beamont's replacement as Wing Commander Operations was Wg Cdr John Wray, who had taken over No 125 Wing from Wg Cdr Geoffrey Page. He had brought in Nos 80 and 274 Sqns to join the wing a few days earlier. Four more replacement pilots arrived on 13 October, including the highly decorated New Zealander Flt Lt Jimmy Thiele, who joined No 486 Sqn but would later take command of No 3 Sqn when Sqn Ldr J H Iremonger finished his operational tour. As well as his impressive decorations (DSO, DFC and two bars), Thiele, for a fighter pilot, had a most unusual background with two Bomber Command tours under his belt (Wellingtons, Halifaxes and Lancasters), not to mention spells as an Operational Training Unit (OTU) instructor and ferry pilot. With some difficulty, he had managed to transfer to fighters and had flown Spitfire XIIs during the anti-'Diver' campaign.

Operations continued apace, with five squadrons allowing the wing to put up as many

as 150 sorties in a day. Most of these were defensive patrols, with nearly all the action generated by occasional ‘armed recces’ when trains and motor transport were attacked. An exception was 21 October when No 3 Sqn ran into three Me 262s apparently heading for Volkel – they jettisoned their bombs and fled, but not before Flt Lt Spike Umbers had managed to damage one.

The weather was now beginning to play a greater part in operations, with the number of days lost through bad visibility starting to increase. Northwest Europe was in for a very harsh winter. A third wing had by now joined Nos 121 and 122 at Volkel, No 126 Wing, with four Canadian Spitfire IX squadrons under its command (see *Osprey Aviation Elite Units 35 – No 126 Wing RCAF* for further details). This meant there were now around 200 fighters and fighter-bombers operating from the Dutch airfield. Perhaps this was too tempting a target for KG(J) 51, for on 28 October five Me 262s penetrated to drop canister bombs on Volkel. Surprisingly, the bombs did little damage, and the jets were chased off by a patrol from No 486 Sqn. Once again the Tempests could not get near enough for effective shooting.

The next day, however, the Volkel Tempests took the battle to the jets’ bases, scrambling two sections (four aircraft each) from No 274 Sqn, with one allocated to Achmer (home of *Kommando Nowotny*, equipped with the fighter version of the Me 262) and one to Rheine. These were timed to catch ‘squirts’ (as all jets were popularly known) returning to their bases low on fuel. One appeared at Achmer but, spotting the reception committee, headed for Rheine, where Flt Lt Fairbanks’ section awaited. A fruitless chase at low level over town and airfield followed, resulting in flak damage being inflicted on three Tempests. The jets were well protected by flak, and the Achmer section was fortunate in that its presence does not appear to have triggered a scramble of 9. or 12./JG 54’s Fw 190D-9s, which were based there for protection of jet movements.

Flying was now interrupted for days on end when it was ‘clampers’ – zero visibility – but the weather cleared on 2 November and patrols resumed. In the afternoon No 274 Sqn attacked three Me 262s between Deurne and Nijmegen, claiming each of the jets was damaged although once again they proved too elusive to shoot down. However, it seems that the Tempest pilots’ luck may have changed the following day. Wg Cdr Wray was up on an ‘air test’ when he spotted two jets about 2000 ft below him. As they turned tail, he dived on the nearest one, opening fire at 600 yards and seeing ‘a sizable chunk’ fly off. The Me 262 promptly flipped onto its back and dived vertically into the cloud. Wray claimed a ‘probable’ but was only credited with a ‘damaged’. However, post-war research shows that Unteroffizier Delatowski of 3. *Kommando Nowotny* was lost to an enemy fighter that day, and he seems likely to have been Wray’s victim. Delatowski had previously survived being shot down by Plt Off Bob Cole of No 3 Sqn on 13 October.

Flt Lt Warren Peglar RCAF poses with Flt Lt 'Foob' Fairbanks' No 274 Sqn Tempest EJ762/JJ-F shortly before the end of his tour in December 1944, when he was awarded the DFC. Peglar had claimed four victories with the USAAF's 354th Fighter Squadron/355th Fighter Group, during a detachment, but he returned to the RAF and joined No 274 Sqn for the last three months of 1944. Fairbanks' Tempest has been repaired following his near escape on 19 November, but smoke stains remain on the fuselage, having only been cleaned off the squadron letters (*W B Peglar via A S Thomas*)

A more successful scramble to Rheine was seen on 19 November, where No 486 Sqn caught two Me 262s taxiing out to the runway. Both were shot up by four Tempests and left riddled with holes, with one of the Me 262s left visibly smoking. A similar description could apply to Flt Lt D C Fairbanks' Tempest, which was hit by flak on the same day while attacking the inevitable train. The fighter was struck in the leading edge of the port wing, which ignited a fuel tank, sent flames streaming behind the Tempest and set light to its fabric-covered rudder. The exploding flak had flipped the aeroplane onto its back, at which point the engine also burst into flames. Fairbanks swiftly changed fuel supply to the starboard tank and managed to right the Tempest, which extinguished the engine fire. He then jettisoned the canopy and set course for Volkel, where he landed safely. Fairbanks

received an immediate DFC following this mission.

The first two months of operations in 2nd TAF proved quite costly, with No 122 Wing losing 21 Tempests and ten pilots, five of whom were now PoWs. Seven had been victims of flak and three had fallen to German fighters, but no less than eight aircraft had been lost through engine failure – Sqn Ldr J R Heap of No 274 Sqn had been killed in one of the latter. His replacement was Sqn Ldr Alex Baird, previously one of the unit's flight commanders.

December saw the emphasis on operations change from defensive to offensive, and almost immediately, on the third of the month, Flg Off 'Judy' Garland of No 80 Sqn claimed another victory over the elusive Me 262 (see cover caption for details). The pace of aerial combat was quickening, particularly for No 56 Sqn. On 8 December it was in action again when an 'armed recce' north of Rheine brought contact with 12+ Fw 190s, one of which was claimed to have been destroyed and a second example damaged. Two days later the Volkel patrol intercepted and gave chase to a pair of Me 262s in the Nijmegen area, Flt Sgt Jackson damaging one with a burst that produced a puff of brown smoke from the target. It now seems likely that he had fatally damaged the jet, as Leutnant Walter Roth failed to return. On 13 December No 56 Sqn was on the ball again when a section of fighters on guard above Tempests attacking a stationary train on the outskirts of Rheine pounced on three Bf 109s circling as if ready to attack. Two fell to the Tempests' guns.

The squadron's purple patch was by no means over, for three days later, again in the familiar Rheine area, 18 Bf 109s were encountered and engaged by just eight Tempests. Three of the German fighters went down with no loss to No 56 Sqn, despite Flg Off David Ness, out of ammunition, being pursued at ultra low level for some time. The best, however, was yet to come.

On 16 December, the German counter-attack through the Ardennes had caught the Allies by surprise. Extremely poor weather conditions had allowed few Luftwaffe aircraft into the air in support of the offensive, but the following day there was enough improvement for fighters from both sides to get airborne. From No 122 Wing the first Tempests up were from No 3 Sqn, which sent eight aloft at 1000 hrs although one turned back with mechanical problems. Flt Sgt Maurice Rose (who had knocked down the first 'Diver' in daylight) spotted six Bf 109s east of Lingen and latched onto one that he despatched after a short chase. Eight more were then seen near Nijmegen, one of which was duly damaged. Rose subsequently attacked a barge and then badly damaged his Tempest while avoiding intense flak. He managed to fly it back to base unaccompanied.

Seen here while under repair at No 151 Repair Unit in 1945, EJ722/W2-M of No 80 Sqn was the Tempest flown by Flg Off David Garland RCAF when he claimed an Me 262 on 3 December 1944 (see cover illustration). The markings of the aircraft were subsequently changed in accordance with a 2nd TAF order issued on 2 January 1945 (*A R Gearing via W Smith*)

Meanwhile, at 1010 hrs, No 274 Sqn had scrambled eight Tempests to the Münster area, where they engaged scattered Bf 109s. At 1030 hrs Flt Lt Fairbanks claimed one destroyed, followed 15 minutes later by a second Bf 109 and Flt Lt Hibbert brought down a third. After another 15 minutes had passed Fairbanks spotted a pair of Bf 109s passing in the opposite direction to him. He later wrote in his combat report;

'One was being chased by another Tempest and I broke onto the second one. This enemy aircraft continued straight and level just at the base of cloud [4000 ft]. I quickly

closed the range from below to approximately 150 yards and fired but only my port cannons worked. After a few bursts I saw strikes on the enemy aircraft's starboard wing. He did only a very slight turn to starboard and continued on. I rolled onto him again and fired until my ammo ran out. I overhauled the enemy aircraft and came right under his wing for a few seconds – the pilot was looking out the opposite side and did not seem to have a clue! He finally saw me and I pulled over the top of him, gave the finger sign and came home.'

It was to be No 56 Sqn's day once more when, later in the morning, a formation heading for Rheine was called back to the Helmond area. Finding no 'trade' there, the pilots set course again for Rheine. Near Grave, four Bf 109s were spotted coming down on the Tempests out of cloud. The pilots immediately turned into them to attack, and in the one-sided combat that ensued three of the Bf 109s went down, each one shared by two of the No 56 Sqn pilots.

Wg Cdr Wray had also taken off from Volkel, and on instructions from 'Kenway' (No 83 Group Control Centre) he set course for Weert, where jets had been sighted. Steering south at 2500 ft, Wray suddenly saw two Me 262s crossing his path, heading west, and gave chase to the leader, his No 2 attempting to catch the other jet. Flat out in his Tempest, Wray had to watch the Me 262 pulling away in a gentle dive, but for some reason its pilot elected to turn left until it was heading east, 'on the deck'. He was now able to close on the jet, which began to weave violently until it hit a building with the tip of its port wing and plunged into the nearby Rhine.

No 56 Sqn was, however, not yet finished for the day. Eight Tempests set off again for the Münster area and encountered two rare targets in the form of Heinkel He 219 nightfighters heading for a nearby airfield. One eluded the hunters while the other was attacked. With its port engine put out of action, the aeroplane attempted to land at Münster airfield, but the Tempests pounced again and it overshot, crashing into a ruined building.

While this was happening three of the Tempests were lining up to tackle a train. Around 25 Bf 109s appeared above them and Flt Lt 'Bob' Moore immediately attacked, swiftly hacking down one before discretion intervened and he set course for home, at speed. Flt Sgt 'Jimmy' Bosely also waded in after 'dicing' with a Bf 109 and was able to shoot it down before following his leader's example. The third Tempest was flown by WO Joe Alexander, who now found himself surrounded by nine of the German fighters. After a 'shaky do' in which he damaged one, he eluded his opponents and returned to base. It must have been quite easy to persuade the intelligence officer of the veracity of his claim as part of the enemy aircraft was wedged in the leading edge of his Tempest, between the cannon!

The nine pilots from No 80 Sqn who took off for their last patrol of the day on 16 December well illustrated the international nature of Tempest squadrons – indeed, to a greater or lesser degree, all 2nd TAF squadrons. The pilots were of seven nationalities, led by New Zealander Bob Spurdle, with three British airmen, plus one from each of Australia, Canadian, Norway, Rhodesia and South Africa. The latter pilot was the nominated 'spare', who turned back at the 'bomb line', but the rest continued to Bielefeld.

After fruitlessly chasing Me 262s on two operations earlier in the day, and the rest of

the wing's successes (ten destroyed for no loss) on the 16th, they probably anticipated aerial combat, but no opposition was sighted. The No 80 Sqn formation duly set about five trains, mechanised enemy transport (MET), a radar station and a factory, but the Tempests' ever-present nemesis, flak, was lurking, ready to spoil what had been a great day for No 122 Wing. The German gunners claimed two victims – the Canadian, Flt Lt J M Weston, was heard to report coolant problems and did not return and the Norwegian, Lt J B Gilhuus, dived into the ground from 200 ft after his fighter was seen to be hit by flak in the cockpit area.

EVENTFUL CHRISTMAS

The weather deteriorated after 17 December, with thick fog preventing all flying bar a handful of limited defensive patrols. On Christmas Eve conditions cleared and No 122 Wing's scoreboard began ticking over again.

Heading towards the Ardennes battle area, No 3 Sqn spotted ten Bf 109s to the northwest of Malmédy. Flt Lt Thiele got a burst in on one of them, crumpling its starboard wing and sending it down out of control. Flg Off R Dryland did not return from this patrol, but he did turn up at Volkel 48 hours later. Dryland reported that he had dived on and shot down an Fw 190D-9 (apparently from IV./JG 54) but had then himself fallen to flak shortly thereafter, force-landing behind enemy lines. Waiting until nightfall, Dryland managed to make his way through the German lines until picked up by a US Army patrol.

Shortly after Dryland's success, a newcomer to No 274 Sqn, Sqn Ldr E D Mackie, also attacked an Fw 190 from 13./JG 3. He had spotted it below as it crept up behind a formation of Typhoons, picking off the top-cover pair before he could intervene. Retribution was swift, however, as Mackie shed his long-range tanks, dived on the Focke-Wulf and delivered a two-and-a-half second burst from his cannon. The enemy fighter slowed and then spun into the ground. Hauptmann Wolfgang Kosse's 27th and 28th victories were his last. Mackie, a New Zealander and a highly experienced Spitfire pilot with 15 and 2 shared victories already to his name, was flying with No 274 Sqn as a supernumerary in order to gain Tempest experience before taking command of a unit himself. He would not have long to wait, for No 80 Sqn's CO, Sqn Ldr Bob Spurdle, was approaching the end of his (fifth) tour, and 'Rosie' Mackie eventually took his place on 13 January 1945.

There was of course no break from operations on Christmas Day. Wg Cdr Wray took No 80 Sqn on a patrol, during which he and Plt Off Reg Verran claimed strikes on a new opponent in the form of an Ar 234 twin-jet reconnaissance bomber – the type was on only its second day of operations as a bomber. Once again the damage from the attack appears to have been fatal, for while the jet initially escaped, Leutnant Alfred Frank was obliged to crash-land his damaged aircraft at Teuge, in Holland, rendering it out of action. Another jet fell to the Tempests' guns in the afternoon when Flg Off Jack Stafford and Plt Off R D Bremner of No 486 Sqn intercepted an Me 262 near Aachen. Under repeated attacks, and slowing with one engine damaged, the pilot elected to bail out, although his parachute did not deploy correctly.

The Tempests were again successful on the 27th when, during the morning, No 274 Sqn claimed two Bf 109s shot down. Immediately after midday, No 80 Sqn claimed all four

Fw 190s it encountered without loss – 14./JG 54 did indeed lose four pilots and their aircraft that day. A few minutes later Sqn Ldr K G Taylor-Cannon, at the head of eight Tempests from No 486 Sqn, was directed by 'Kenway' to the Münster area, where, at 10,000 ft, they found themselves sandwiched between 15 enemy fighters below and an even larger formation above. There were in fact 60 Fw 190s of III./JG 54 in the immediate area, and fortunately for the New Zealanders the enemy unit had just returned from reforming and many of its aircraft were being flown by inexperienced pilots. The squadron immediately waded into the mixed formations of Fw 190s and Bf 109s, claiming four destroyed, one probable and one damaged. However, on this occasion, 10./JG 54's 31-victory ace Leutnant Peter Crump managed to retaliate by shooting down Flg Off 'Bev' Hall in EJ627/SA-E – Crump claimed two Tempest kills.

29 December proved to be more costly for No 122 Wing when small formations of Tempests on armed reconnaissance missions were greatly outnumbered by Luftwaffe formations they encountered. The first clash took place during the morning near Rheine when No 3 Sqn aircraft were attacked by a reported '20+ Messerschmitts and Focke-Wulfs', a similar-sized second formation then appearing. Flt Lt Thiele eluded his attackers and latched onto a lone Bf 109, which he claimed shot down. No 3 Sqn suffered a bitter blow, however, when two of its longer-serving members – both V1 aces who had begun their operational flying with the unit in 1943 – failed to return. According to recent research by John Manrho, Flg Off Ken Slade-Betts and Flt Lt 'Eddie' Edwards, who had recently returned to operations after a spell in hospital, appear to have been the victims of a 'bounce' by Bf 109s from III./JG 6. Edwards was killed when his Tempest crashed near Spelle, but Slade-Betts survived, only to be murdered by the security officer at Rheine airfield – summary execution was the fate of a growing number of Allied aircrew.

During the afternoon eight No 56 Sqn pilots engaged in a hectic and confused dogfight when '50+' enemy fighters appeared south of the Dummer See. Two of the Tempests went down with the loss of their pilots, but No 56 Sqn was eventually credited with four enemy aircraft destroyed – two of these were credited to Flg Off Jim Payton, thus making him an ace with five destroyed.

For the next two days flying was curtailed once again by the weather. Despite this, the wing's statistics for the month were impressive, with claims for 33 enemy aircraft destroyed for the loss of nine pilots (two of whom survived as PoWs). Perhaps the two-day break was as well, for the new year would begin with a very active day indeed.

VOLKEL ESCAPES *BODENPLATTE*

For some time the Luftwaffe had been planning an all out attack on the Allied airfields in Belgium and Holland. The ambitious plan entailed mass attacks by large formations of fighters, and among the targets was a most tempting one, Volkel, home to nine squadrons of Tempests and Typhoons crammed into space restricted by the massive damage inflicted by Allied bombing when the airfield had been under German management. This target was assigned to JG 6, which had two *Gruppen* of Fw 190As and the third of Bf 109Gs – no fewer than 99 fighters were prepared for the mission, taking off shortly after 0800 hrs.

Fortunately for Volkel's units, a number of factors worked in their favour. Confusion over the route to the target and the loss to flak of senior pilots en route led to the division

of the formation, with smaller groups attacking Allied airfields other than that intended, including B78 Eindhoven and B88 Heesch as well as B86 Helmond (which was still under construction and actually had no aircraft based there). In addition, by the time a small number of the Luftwaffe fighters actually attacked Volkel (said to have been as few as nine) at around 0900 hrs, three of the Tempest squadrons were already airborne on train-busting operations. They were recalled immediately.

No 3 Sqn had by then lost Plt Off Ron Pottinger to flak, but the rest of the formation caught some aircraft from JG 6 whilst they were apparently looking for Volkel, despatching two Bf 109s and an Fw 190. No 486 Sqn had been on its way to Hanover when recalled, and it intercepted enemy aircraft over Helmond. Sqn Ldr 'Spike' Umbers caught an Fw 190, which, under his fire, burst into flames when it hit the ground. He then spotted a Bf 109 heading east that was attempting to join a larger formation. Using the last of his ammunition, Umbers claimed a second victim. The New Zealander's Red section now turned for base, and as they approached Volkel another Fw 190 was seen strafing the airfield. Flg Off Bill Trott then gave what No 174 (Typhoon) Sqn's diarist described as 'a perfect example of how it should be done', overhauling and opening fire with a short burst at 150 yards, causing one wing to crumple and flipping the Fw 190 onto its back as it dived into the ground.

SA O H

A fitter working on No 486 Sqn's EJ752/SA-H pauses to warm his hands over a brazier at B80 Volkel. Conditions for groundcrew were harsh during the winter of 1944/45 when most maintenance work had to be carried out in the open (*via M Wallis*)

Meanwhile, No 486 Sqn's Green section had been in action too, tailing three Fw 190s heading north for Eindhoven. Plt Off Gus Hooper shot down one of the fighters near Venraj and was then attacked by a Bf 109. When the latter aircraft broke away, he chased after the Messerschmitt and managed to damage it. A short while later Plt Off Jimmy Sheddan investigated flak bursts to the north and caught up with two Fw 190s and a Bf 109 (perhaps the survivors of Hooper's combats), bringing down one of the former.

No 56 Sqn was in the action too, heading towards Osnabruck-Paderborn and attacking five trains en route. Upon hearing all the commotion over the R/T, the unit swiftly set course for Volkel. Although it missed most of the excitement, the squadron caught and destroyed yet another Fw 190. No 274 Sqn got airborne after the attack and also headed for Paderborn, but it proved to be an uneventful trip. It was the only Tempest squadron not to see action on the 1st, for No 80 Sqn, which followed No 274 Sqn into the air, claimed two Fw 190s when Flg Off 'Judy' Garland scored his third and fourth victories. This brought No 122 Wing's total for the day to ten confirmed destroyed for the loss of Plt Off Pottinger, who was eventually reported as a PoW.

After the action of New Year's Day the bad weather closed in again, severely curtailing flying operations. The wing now had a new Wing Commander Operations, Wg Cdr Wray having gone on rest. His position was taken by ace Wg Cdr Peter Brooker, who must have been pleased to be reunited with No 56 Sqn, having flown Hurricanes with the unit both before the war and throughout the Battle of Britain. He could have hardly been better qualified, having commanded the Fighter Leaders School and led a Typhoon wing during the D-Day invasion.

It was the afternoon of 4 January before the Tempests were able to seek out the Luftwaffe again, as well as their accustomed ground targets – MET and trains. Flt Lt Fairbanks, now a flight commander with No 3 Sqn, claimed an Fw 190 for his fourth victory (the third flying Tempests), while Flg Off Ness of No 56 Sqn claimed a Bf 109, which was also his fourth solo success. A second Bf 109 was credited to No 56, while two pilots from No 80 Sqn shared in the destruction of an Fw 190 and two more were damaged.

The weather precluded operations in the Ardennes area, and although a few sorties were made to Münster, it would be ten days before the air combat scoreboard was ticking over again. For six of them there was no flying at all – 14 new Tempests were due in from the Group Support Unit (GSU) in the UK but none were able to get through to Volkel, the fighters being spread around various continental airfields awaiting weather improvement.

On 13 January No 486 Sqn was asked to provide air support for the US First Army in the Ardennes. The weather conditions were still very poor and the cloud base was uncomfortably low, forcing the Tempests down below 700 ft. As they flew over roads packed with American transports, they were met with a hail of light anti-aircraft fire that hit five of the eight Tempests. Two were forced to land in American lines, one pilot bailed out (and was shot at during his descent) and two more Tempests were so badly damaged they were declared 'Cat B'. One of the Tempests that force-landed was flown by the CO,

Sqn Ldr ‘Spike’ Umbers, who stormed into a US Army command post and had to be removed by MPs.

NV657 was one of 14 Tempests unable to get through to Volkel due to the bad weather in January 1945. En route from No 83 GSU at Westhampnett to No 80 Sqn at Volkel, the pilot of the aeroplane was forced to land at B70 Deurne and stay there until 14 January. The instruction to delete ‘D-Day stripes’ clearly had failed to reach the GSU (*Grp Capt Denys Gillam*)

The next day was a completely different story, with the weather fine and clear. The Tempests went out hunting trains again, and during the course of No 3 Sqn’s attacks the ever-alert Flt Lt Fairbanks intercepted and shot down a Bf 109 and an Fw 190 that had attempted to interfere with their strafing. The wing’s total for the day was seven aircraft

destroyed, including an He 219 gifted to Flt Lt H A Crafts when it appeared at 1000 ft while he was engaged in attacking a train.

On 14 January conditions closed in yet again, and the weather remained poor for eight days. Finally, on the 22nd, the wing celebrated clearing skies with a single air combat claim and an impressive list of ground targets destroyed or damaged, comprising the usual trains and MET but also including signal boxes, gliders, barges and a factory. This was just a ‘taster’ of what was to follow the next day.

During the early morning of 23 January Nos 80 and 274 Sqns engaged Bf 109s and Fw 190s in the Gütersloh area, both units claiming two of each type, to which No 80 Sqn added an Fw 190 probable. Two hours later No 3 Sqn engaged ten Fw 190s that were fitted with rocket launchers beneath their wings, catching the aircraft at low level to the west of Bielefeld and claiming four shot down and two damaged. Two confirmed and one damaged were credited to Flg Off Basilios Vassiliades, a pilot of Greek extraction who had recently joined the squadron (and was already an ace, having flown Mustang IIIs with No 19 Sqn).

No 56 Sqn was involved in a sweep over the Paderborn area at about the same time, where an Me 262 was sighted below at about 300 ft. Diving from 6000 ft, the Tempests’ accumulated speed helped them overhaul the jet after a ten-minute chase. Flt Lt F L MacLeod and his No 2, Flg Off Ron Dennis, both put in telling bursts and the jet caught fire and exploded when it crashed whilst attempting to land in a field.

New Zealanders were much evident in No 122 Wing at Volkel, as seen in this January 1945 photograph with, from left to right, Sqn Ldr E D Mackie (who had just taken command of No 80 Sqn), Sqn Ldr K F Thiele (CO No 3 Sqn), unknown Army officer, Grp Capt P G Jamieson (OC No 122 Wing) and Sqn Ldr A E Umbers (CO No 486 Sqn) (*C J McDonald*)

Early in the afternoon No 80 Sqn, led by Sqn Ldr Evan Mackie, claimed two Bf 109s and a probable over Bramsche – the probable, claimed by Flt Lt R J Holland and Flg Off R H Anders, would later be confirmed. Finally, between 1600-1700 hrs, Nos 486 and 56 Sqns claimed a further six fighters during two engagements over Rheine to bring the day's total to 21 destroyed, two probables and eight damaged in the air without loss. In addition, more than 30 trains had been destroyed or damaged.

Guided by 'erks' seated on the wings, No 274 Sqn Tempests taxi out from a snow-bound Volkel in January 1945 (*Sqn Ldr W J Hibbert*)

Just two days later, on 25 January, Sqn Ldr Fairbanks was again chasing an Me 262, or at least he thought he was. Hitler was convinced that the Allies would attempt to recapture the still-occupied Low Countries by seaborne invasion, and one of the newly-operational Luftwaffe long-range reconnaissance squadron (1.(F)/123, equipped with Ar 234s) was given the task of checking on the port most likely to figure in such an undertaking – Hull,

on the East Yorkshire coast. The unit commander, Hauptmann Hans Felde, flew the mission himself.

As he was nearing his base at Rheine at the end of the sortie, Felde was spotted by the No 274 Sqn formation led by Sqn Ldr Fairbanks, who gave chase. The Ar 234s had been carrying out reconnaissance missions largely unchallenged or even seen by the Allies since August 1944, but now one of the jets had been caught in the vulnerable process of approaching to land. Felde had just extended the undercarriage when Fairbanks closed to 300 yards behind the Ar 234 and opened fire with a short burst. Immediately, puffs of smoke and then flames appeared from the fuselage, and shortly thereafter the jet dived into the ground in the centre of the airfield. The ‘Me 262’ Fairbanks claimed was the first Ar 234 to fall to an Allied fighter.

MORE TEMPESTS FOR 2nd TAF

During the third week of February 1945 No 122 Wing lost its status as 2nd TAF’s sole Tempest wing. During the midwinter period two No 84 Group squadrons, Nos 33 and 222, from No 135 Wing, had been withdrawn from the Continent and stationed at Predannack, in Cornwall, for their conversion to the Tempest from the Spitfire IX. A shortage of Tempests and inclement weather delayed the process, but the two squadrons finally arrived, ready to join the fray, at B77 Gilze-Rijen on 21 February. Their place at Predannack would be taken by No 135 Wing’s other two Spitfire units (Nos 349 and 485 Sqns), although their conversion to Tempests would eventually be abandoned owing to a shortage of aircraft. In addition to the high attrition rate in 2nd TAF, a shortfall in Tempest pilots had been foreseen and the newly formed Typhoon/Tempest training unit, No 56 OTU at Milfield, in Northumberland, had priority for equipment.

No 222 Sqn pilots pose for a group photo during their Tempest conversion at Predannack. Third and fourth from the left in the second row back are Sqn Ldrs H C Rigby and E B Lyons, the former handing over the squadron to the latter. Far right in the row behind them is Flt Lt George Varley, who would add a further Fw 190 (to the one he had already claimed whilst flying Spitfires), a Bf 109 and an Ar 234 to his score, earning him a DFC (*No 222 Sqn records*)

After the defensive patrols of the autumn and the loss of operational flying during the bad weather of the winter, the Tempests were now very much on the offensive. The majority of the sorties were aimed at crippling the German rail network – an unglamorous, dangerous but important task. During the course of these operations not only were significant numbers of pilots lost to flak, but the Luftwaffe, when encountered, still tended to be present in much larger formations (in an attempt to protect their airfields) than the Tempests.

Illustrating 2nd TAF's unique colour scheme during 1945, EJ829/JF-B of No 3 Sqn has 'Type C1' (or more correctly, National Marking III) roundels in all positions. Spinners were repainted black, and the rear fuselage Sky band, and the remaining 'D-Day stripes', were painted out. EJ829 was flown by many of No 3 Sqn's pilots in the last two months of hostilities, including the unit's Greek ace, Flg Off Basilios Vassiliades, but most often by Flg Off L G Everson (*Clostermann Archive*)

On 24 February a different target presented itself. Just before noon No 80 Sqn discovered a dream target – an oil refinery surrounded by flak emplacements that were empty! When the unit had expended all of its ammunition, oil tanks, wagons and derricks were ablaze. No 56 Sqn paid a visit in the afternoon to complete the job, setting fire to more wagons and oil storage tanks. Pilots also noted, with some disappointment, that one of the latter was only burning slowly, unlike the others. The rest of the wing had a good day as well, with Sqn Ldr Fairbanks scoring his 12th victory – a solitary Fw 190 that he caught near his favourite hunting ground, Rheine. It was his last confirmed kill.

On the same day one of No 3 Sqn's new recruits set out for his first operational flight – a cannon test. Flg Off L C Ewens was typical of many of the new pilots arriving in 2nd TAF squadrons at the time. The RAF pilot training schemes had gone into overdrive during the mid-war years and there were now insufficient places in the frontline to satisfy the desire of the successful graduates of these schemes for operational postings. Accordingly, many who had completed fighter OTU courses found themselves in second-line units such as bomber affiliation flights or ASR squadrons – 'Pop' Ewens had accumulated a good number of Spitfire hours in one of the latter units. It needed luck and perseverance to get into operational squadrons, especially when competing with large numbers of experienced pilots who had completed an operational tour and were looking for a second.

Ewens' chance came when OC No 83 Group, Air Marshal Harry Broadhurst, visited the Belgian ASR squadron base. Ewens and another ASR pilot sought an interview to put their case for operational flying. Impressed by their zeal, Broadhurst asked what they wanted to fly – 'Tempests' came the swift reply. They were soon on their way to No 83 GSU at Westhampnett for a conversion course.

Returning to 24 February, after his 'cannon test' baptism (during which he had destroyed a barge), Ewens set out on his second 'op' of the day as No 2 to his flight commander, Flt Lt Bob Humphries. The 'armed recce' was successful, adding eight locomotives and four barges destroyed and two barges damaged to the day's score. However, Ewens had cause to question his career choice. Diving on one of the barges, and unused to the rapid acceleration of the Tempest, he left the pull-out a fraction too late;

Following his narrow escape on his second 'op', Flg Off 'Pop' Ewans made a wheels-up landing in EJ765/JF-T at Volkel on 24 February 1945. Seen here back on its undercarriage, the fighter was sent back to the UK for repair by Hawker. Returned to airworthiness the following September, EJ765 would spend the rest of its service in store at No 20 MU (*L C Ewens*)

'[I] found myself pulling like mad on the stick to stop myself hitting the ground. An instant later I went smack through the tops of some fir trees – I say the tops, but it must have been well down among the lower branches. The rather silly thought – "what a pity Ewens, you've had it" – went through my head. Then to my surprise I found I was still flying, but only just'.

With the engine temperature steadily rising, Ewens nursed the battered Tempest back to Volkel to make a wheels-up landing. Unfortunately, his arrival coincided with that of a No 41 Sqn Spitfire XIV that had been hit by flak, badly wounding the pilot, Flt Lt Tommy Burne, in the arm and chest – he had already lost a leg fighting the Japanese in Sumatra. Selflessly, Burne abandoned his approach to allow Ewens' ailing Tempest to land first, before executing a perfect landing himself. His courage earned him a DSO.

The day also brought the first action for No 135 Wing Tempests. 'Treble Two' was led by the new Wing Commander Operations, New Zealander Wg Cdr H M 'Morrie' Mason, to Plantlunne airfield, where it caught a formation of at least nine Fw 190D-9s with engines running and about to take off. The Tempests swiftly attacked and claimed two destroyed, three probables and three damaged. The wing diarist was particularly pleased as the German fighters were thought to belong to JG 26, the unit that had provided three Fw 190s among those that had strafed the wing's base during *Bodenplatte* !

With the newly equipped 'Treble Two' having drawn blood so quickly, the other fresh Tempest unit, No 33 Sqn, got its opportunity the very next day. Sqn Ldr A W Bower led eight Tempests to the infamous Rheine area and met at least 15 Bf 109s coming the other way! The Tempests smartly turned in behind the fighters from JG 27 and a number of individual combats developed. No 33 Sqn was able to claim four destroyed and four damaged in exchange for the loss of Flg Off A Harmon, who was later found to be a PoW. Two of the destroyed planes were credited to Flt Lt L C Luckhoff, who landed at the nearest Allied airfield, Volkel, after being badly hit by flak during the low-level chase of his second victim.

The final day of February, the 28th, brought the month to a close on a rather different note. Once more 'Foob' Fairbanks led No 274 Sqn on an 'armed recce', and at about 0800 hrs some ten miles east of Osnabrück, the unit encountered '40+' German fighters – reported as a mixed formation of Fw 190s and Bf 109s, although all the aircraft were in fact Fw 190D-9s of the newly re-equipped III./JG 26. Six Tempests, somewhat outnumbered, charged straight into the Luftwaffe formation, and as it split several 'Doras' fastened onto the tail of each Tempest. In the wild combat that ensued the RAF pilots were only able to loose off short bursts and could not observe the results, but five Fw 190D-9s were claimed as damaged. Four Tempests escaped and returned to base, but Fairbanks, who had been seen to shoot down a Focke-Wulf, and Flg Off J B Spence were missing. Eventually, both would be reported as PoWs. Fairbanks' last call had been 'Five on my tail!' and his Tempest had in fact been badly damaged by one of them. With his NV943/JJ-F almost uncontrollable, he bailed out into captivity.

5R

Sqn Ldr A W Bower, CO of No 33 Sqn, usually flew EJ886/5R-N and claimed one of the unit's first kills with it (a Bf 109 of JG 27) on 25 February 1945. He would later be credited with an Fw 190 shared destroyed on 26 March 1945 (*W McKerrow*)

All told, February had been a relatively bad month for the Tempest squadrons. Although they had been credited with 30 enemy aircraft destroyed in the air, they had lost 31 Tempests in action – of these, only seven seem to have been lost to enemy fighters, whilst 17 had been brought down by flak and seven were apparently victims of engine failure. On a brighter note, of the 31 Tempest pilots concerned, no fewer than 21 survived – 16 as PoWs and five evaded capture and returned through the lines.

2nd TAF's response to these incidents, and the growing number of encounters in which the Tempests were heavily outnumbered, was to issue an edict banning ground attack and to only allow Tempest formations of 16 or more into enemy territory. This stricture did not last more than a few days, but the point had been made.

An early morning sweep by 'Treble Two' on 2 March produced more encouraging results for the new Tempest unit when two Ar 234s from 9./KG 76 were encountered. Flt G W Varley immediately attacked one, and as he opened fire from a rather hopeful 1000 yards the other jet appeared flying in the opposite direction. He was able to close on this one, opening fire with a two-second burst from dead astern at 200 yards, causing the Arado to explode. Just in time Varley heard the section leader's call to 'break port' and found himself facing about a dozen Bf 109s intent on retribution. However, after around six turns with one of the German fighters it broke away and attempted to escape 'on the deck', only to be overhauled and shot down. Varley's colleagues were able to claim three more Bf 109s, plus damage to a second Ar 234. One of No 222 Sqn's pilots had managed to keep up with an Arado at 450 mph IAS for three minutes but he had been unable to close to within firing range. George Varley went on to damage another of the jet bombers that afternoon.

ZDO

Seen in its dispersal at Kluis, No 222 Sqn's Tempest SN165/ZD-V had been flown by Sqn Ldr E B Lyons in an attack on Fassberg airfield on 11 April 1945. The fighter was hit in the rear of the cockpit by flak during a strafing pass, breaking off armour plating attached to the seat which in turn struck Lyons on the back of the head. Semi-conscious, the pilot managed to pull up straight away and fly 200 miles back to base (*via J B Scutts*)

Also on 2 March, a message was sent out to all 2nd TAF wings preventing them from strafing west of the Rhine – an indication that the west bank was about be cleared of the Wehrmacht. The way was now clear for an assault on Germany itself, which would commence in three weeks' time. Meanwhile, the weather deteriorated once again, curtailing or prohibiting flying and restricting further air combat successes to just three days in the next three weeks of March.

Perhaps the most famous Tempest pilot, French ace Flt Lt Pierre Clostermann was first posted to No 274 Sqn as a supernumerary flight lieutenant in January 1945. Two months later he filled a vacancy within No 56 Sqn as 'B' Flight commander, and he is seen here with his personally marked Tempest EJ536/US-W. Clostermann transferred to No 3 Sqn as A Flight commander on 8 April (*Clostermann Archive*)

On the 5th, Free French ace Flt Lt Pierre Clostermann, having just joined No 274 Sqn, opened his Tempest account when, on an 'air test', he encountered four Bf 109. Quickly shooting one of the fighters down, he then eluded the others in cloud. Two days later four fighters were claimed by four already successful pilots – Flg Off B M Vassiliades (No 3 Sqn), Flt Lt J J Payton and Flg Off V L Turner from No 56 Sqn and No 80 Sqn's CO, Sqn Ldr E D Mackie. Then on 14 March 'Treble Two' caught another Ar 234, which was hunted down over Quackenbrück airfield.

The Tempest wings were reorganised on 17 March when No 274 Sqn transferred to No 135 Wing at B77 Gilze-Rijen, bringing that unit back up to four-squadron strength – the wing's remaining two Spitfire units were about to depart for Predannack for conversion to Tempests. No 274 Sqn found No 135 Wing's organisation and procedures somewhat different to what it was previously used to, but the operations carried out were much the same. The weather, however, continued to cause problems, two Tempests failing to return from separate sorties on the 17th. When Luftwaffe aircraft were encountered, they were able to escape in the poor visibility conditions. This was particularly frustrating for Nos 33 and 274 Sqns four days later when they ran into '10+' Fw 190D-9s and a similar number of Me 262s, only to see them smartly disappear into cloud.

As Allied armies approached the Rhine, the Luftwaffe fighter units withdrew to operate from airfields deeper in Germany. When they ventured aloft they were now faced by overwhelming air power. No 122 Wing's diarist remarked on 21 March, 'Once again the chief difficulty experienced by our squadrons was finding their right places in the vast queue of Allied aircraft filing into the Reich'. However, on the 22nd, during the third operation of the day, Tempests from Nos 56 and 80 Sqns swept over the Rheine and the Minden-Dummer See areas from about 1530 hrs. As they approached Rheine, the pilots spotted 12 Fw 190Ds of II./JG 26 that had been scrambled to intercept a Ninth Air Force formation of B-26 Marauder bombers. Instead, they were attacked by the RAF fighters, No 56 Sqn claiming four destroyed and No 80 Sqn claiming two victories and two more damaged. 5. and 6. *Staffel* of JG 26 actually lost five 'Dora-9s', with four pilots killed and one wounded. In return, the Luftwaffe pilots claimed two Tempests shot down, but in fact neither of the squadrons involved suffered any losses.

Flt Lt Tim Hodges, here relaxing in the cockpit of his No 56 Sqn Tempest, was one of the successful pilots on 22 March 1945 when Nos 56 and 80 Sqns met Fw 190s of II./JG 26 near Dummer See and were credited with six destroyed for no loss (*J T Hodges*)

Flt Lt Colin McDonald already had 258 hours of operational flying in North Africa and Italy behind him when he joined No 486 Sqn in September 1944. He would finish his Tempest tour as a flight commander with a Bf 109, an Fw 190 and a Ju 88 to his credit, and he was subsequently awarded the DFC. McDonald's fighter has a Rotol propeller and spinner as fitted to most of the last batch of Tempest Vs (with SN serials) (*C J McDonald*)

Two days later, on 24 March, Operation *Plunder* was launched. The massive land and airborne assault to cross the Rhine involved 4000 transport aircraft and gliders and some 1200 fighters. No 122 Wing's Tempests carried out patrols throughout the day, occasionally threading their way through the transports to attack ground targets. No Luftwaffe aircraft were seen, which was hardly surprising as the German airfields had been targeted by Allied bombers in the days before *Plunder*. No 135 Wing also mounted patrols and visited northern Luftwaffe airfields during the morning of the 24th. Two Fw 190s were spotted on the move at Plantlunne and they were duly attacked. Experienced Tempest pilots Flt Lts J B Stark and R C Kennedy of No 274 Sqn were shot down and killed by intense flak during their strafing passes, emphasising the risk associated with attacking airfield targets. Despite this setback, numerous Luftwaffe bases would be attacked in the coming weeks.

The following day there was some Luftwaffe reaction, and in the morning No 222 Sqn met seven Bf 109s, clawing down four for no loss. The unit almost repeated its performance that afternoon when 11 Fw 190s were engaged and three were claimed destroyed.

The last days of March and the first week of April brought little in the way of air combat, with Tempest pilots being left to pursue ground targets, except on the 6th when No 122 Wing squadrons were credited with five Fw 190s and two Ju 87s (a new type on the Tempest scoreboard, both courtesy of Flg Off Jimmy Sheddan of No 486 Sqn) destroyed.

On 7 April each of No 135 Wing's squadrons took off from B77 Gilze-Rijen but when their sorties were completed they landed at their new base, B91 Kuis, which was still in Holland (south of Nijmegen) but much nearer the front. Four days later the No 122 Wing squadrons landed at their new German home, B112 Hopsten. One of the Rheine airfields so frequently targeted by Tempest units in previous months, it was very familiar territory!

Concentration on ground targets to the exclusion of what else was happening around you could be hazardous, as four pilots from No 33 Sqn discovered on 12 April. A section of four Tempests were thus engaged when they attracted the attention of '15+ Me 109s' (although the fighters involved are now known to have been 12 Fw 190D-9s of I./JG 26). Led by the experienced ace Oberleutnant Hans Dortenmann (who recorded 18 victories in the Fw 190D-9, making him the most successful pilot to fly it in combat), the 'Doras' attacked with determination and speed and before the top cover – two of the four Tempests provided this whilst the others strafed MET – had time to react.

No 486 Sqn's WO W J Shaw was flying NV753/SA-J when he claimed an Fw 190 – it was almost certainly a Ta 152 of *Stab*./JG 301 – on 14 April 1945 (*via A J Cranston*)

Dortenmann later related how 'seven of the eight' Tempests had been shot down, with one, badly damaged, managing to escape. There is little doubt this was South African Capt E D Thompson, whose new Tempest (SN180/5R-V) was badly damaged as he escaped after claiming an 'Me 109' destroyed. Dutch pilot Flg Off D J ter Beek also claimed one destroyed and one damaged. The '109s' were subsequently identified as Fw 190s from the cine-gun film shot by the pilots. However, it seems that JG 26 only lost one 'Dora' and No 33 Sqn had two Tempests shot down, with a pilot of one of the latter, Flt Sgt P C Watton, bailing out successfully and evading capture. His squadronmate, Sgt J Staines, who was on only his second operational flight, was killed.

Mid-April brought two meetings with the very latest fighters the Luftwaffe could bring

to combat. The first of these contacts, on 14 April, was with Focke-Wulf Ta 152s of *Stab*./JG 301, whilst the other, five days later, involved an unidentified jet-powered aircraft that can only have been a Heinkel He 162 Spatz, more commonly known as the *Volksjäger* (‘People’s Fighter).

The clash with *Stab*./JG 301 took place when four Ta 152s took off from Neustadt-Glewe to intercept an identical number of Tempests detected nearby. Wg Cdr Brooker had led three No 486 Sqn pilots into the area in search of rail targets, and they had split into two pairs prior to the Ta 152s making contact with them. According to the New Zealanders’ combat reports, at 1930 hrs WO W J Shaw, Brooker’s No 2, climbed away from an attack on MET and saw a single fighter – identified as an Fw 190 – at low level and he gave chase. Better positioned than Brooker, Shaw dropped his long-range tanks and climbed, before overhauling the Focke-Wulf in a dive. As the ‘Fw 190’ broke to port, Shaw was able to pull inside the turn and gain sufficient deflection to shoot the enemy fighter down in flames.

Meanwhile, the second pair of Tempests had been intercepted by the remaining two enemy fighters, with four more sighted above them. Flg Off Sid Short turned into his attackers and a turning match ensued with one of them. Short claimed to have damaged his adversary, seeing cannon strikes aft of the cockpit, but he was unable to continue the combat as he had another enemy fighter on his tail and a third positioning to join the fray. WO Owen Mitchell, Short’s No 2, was last seen ‘turning at deck level with some 109s’.

A new recruit for No 486 Sqn on 11 March 1945 was Flt Lt W E ‘Smokey’ Schrader. By the end of April he was credited with nine enemy fighters destroyed and one shared. Promoted to command No 486 Sqn on 21 April, ten days later Schrader took over Meteor-equipped No 616 Sqn as a wing commander (*C J McDonald*)

Post-war interviews with the Luftwaffe pilots involved revealed that Mitchell, after a lengthy turning contest, had fallen victim to *Stab*./JG 301’s Unteroffizier Willi Reschke (a 25-victory ace), and Short had been up against the *Kommodore* of JG 301, Oberstleutnant Fritz Auffhammer. The *Stabschwarm* lost Oberfeldwebel Josef Sattler during this clash, his aircraft almost certainly being the ‘Fw 190’ claimed by Shaw – this aircraft had taken off on its own shortly after the first three. Other than that it is difficult to reconcile the RNZAF pilots’ reports with the accounts given by Luftwaffe pilots and witnesses, but that is not unusual in aerial combat, where each person involved has a very individual view of the action.

Give these men a Tempest each and they were even more dangerous! Included in this group from No 486 Sqn are (far left) Flg Off Keith Smith, who had an Fw 190D-9, an Me 262 and eight V1s to his credit, and Sqn Ldr Jimmy Sheddan (centre), whose score was four and three aircraft shared destroyed plus seven and one shared 'Divers' (*C J McDonald*)

At 0830 hrs on 15 April nine Tempests of No 486 Sqn, led by Flt Lt W E 'Smokey' Schrader (shortly to be confirmed as No 486 Sqn's new CO following Sqn Ldr K G Taylor-Cannon's loss two days earlier – he had fallen victim to flak whilst strafing motorised transport near Dömitz) were airborne on an armed reconnaissance to the Müritzsee area. At about 0915 hrs they were notified of an enemy formation on a reciprocal course. Turning onto a heading to intercept, the New Zealanders came up behind a formation of nine Fw 190s and were not spotted by the Luftwaffe pilots until they had closed to within 1000 yards. The Focke-Wulf formation broke and the Tempest pilots each sought individual targets. No 486 Sqn quickly gained the upper hand as one after another, the German fighters were seen to go down.

Flg Off A R Evans, having seen a wing break off his victim, rejoined the dogfight to seek a fresh target and immediately found himself at a disadvantage against a well-flown Fw 190;

'I was forced to try and out-turn him but as my LRTs [long-range tanks] would not jettison, I could not do this, so I tried to out-climb him. But here again the '190 beat me and I stalled and spun out of the turn. When I recovered from the spin I saw three Fw 190s in line astern following me down. As I tried to pull up to port my engine cut and the last of the Fw 190s had a 90-degree deflection shot at me and hit me on the port wing and fuselage. The control column jammed hard and I slowly went over on my back. I jettisoned my hood, undid my straps and was drawn out of the cockpit. Prior to leaving my aircraft, and whilst on my back, I saw the three Fw 190s pull up and rejoin the fight.'

Evans landed in pine trees and was suspended 50 ft above the ground. Escaping from this predicament, he evaded enemy soldiers before being picked up by British airborne troops south of Uelzen.

Meanwhile, a No 80 Sqn formation led by Sqn Ldr Evan Mackie that had taken off an hour earlier than No 486 Sqn heard the New Zealanders reporting their combat and headed for the area. Seeing the fight still in progress, Mackie selected a target that he followed through a series of manoeuvres, eventually scoring strikes in the cockpit area. As the Focke-Wulf dived vertically from 5500 ft Mackie's No 2 scored further hits on the tail, with pieces flying off before it crashed in woods southwest of Uelzen.

On returning to B112 Hopsten, No 486 Sqn filed claims for eight Fw 190s destroyed and one damaged, while Mackie claimed one destroyed, shared with Sgt W F Turner of No 486 Sqn. However, 2nd TAF HQ's final assessment was that Flg Off B J O'Connor's 'damaged' was the same aircraft attacked by Mackie, which meant that the victory was shared between the three pilots.

Also on this day Flt Lts N D Cox and J A McCairns of No 56 Sqn claimed an 'Me 262' destroyed shortly after it had taken off from Kaltenkirchen airfield, seeing the aircraft crash in flames. From gun camera film it was later identified as an Ar 234.

Photographed in front of his Tempest with his groundcrew, Flg Off Owen Eagleson (centre) completed 18 months of operations with No 486 Sqn, claiming 20 and three shared V1s plus two and one shared aircraft destroyed in the air. He was very fortunate to survive both being shot down by flak on 2 May 1945 and a post-war accident (*C J McDonald*)

At 1745 hrs the next day, No 122 Wing Leader and ace Wg Cdr R E P Brooker led No 80 Sqn on an armed reconnaissance over the Pritzwalk-Neuruppin area. Here, three Fw 190s were encountered, and the six Tempests gave chase. As they did so, they were 'bounced' by four or five more Focke-Wulfs. Flt Lt M P 'Slim' Kilburn went after one, closing to 50 yards as he opened fire. Although oil from the enemy aircraft spread all over his windscreen, he was able to see the pilot bail out. Flt Lt R B Prickett hit the port wing root of another Fw 190 and it dived vertically, exploding in a wood as it hit the ground. However, only four Tempests returned to B112 – Brooker and Sgt W F Turner were missing, and nothing was known of their movements or fate other than an R/T call from Turner, who reported his engine was cutting and he was returning to base. Turner's crash site was found after the war but Brooker's fate and resting place remain unknown.

Just before 1100 hrs on 19 April, eight Tempests of No 222 Sqn left B91 Kluis on a sweep to attack Luftwaffe airfields in the Schleswig area. At 1220 hrs Flg Off Geoffrey Walkington was engaged in an attack on Husum aerodrome when he sighted an aircraft flying north at 500 ft. He broke off his strafing run and gave chase. At 360 mph IAS he was unable to close on the aircraft, now some 1500 yards ahead, until it made a turn. By turning inside his quarry Walkington cut the range to some 1000 yards. Carefully trimming his Tempest, he fired a series of short bursts and the enemy aircraft pulled up into cloud. As Walkington followed, he passed his target spinning back down, the aircraft exploding when it hit the ground near Husum airfield.

So what type was the Tempest's apparent victim? Walkington's description in his combat report was 'appeared to have twin fins and rudders and one engine. The nose of the aircraft had a drooping appearance and the wings [plan view] resembled those of a Me 109' – a pretty good description of a Heinkel He 162, the Luftwaffe's latest jet fighter, which had just entered service with I./JG 1 at nearby Leck.

In fact, German sources show two He 162s were airborne at 1222 hrs and were bounced by 'Thunderbolts'. One of the diminutive jets, flown by Feldwebel Günther Kirchner, was hit by fire from the Allied aircraft at '50 metres' shortly after takeoff and the pilot employed his 'ejection seat' – the first time this catapult device had been used in an emergency. Unfortunately Kirchner was too low and his parachute failed to open. Although this description does not tally with Walkington's combat report, the close match of times and location (Husum is only three minutes' flying time from Leck at 360 mph IAS) indicate that Kirchner was the Tempest pilot's victim. As in the previously described combat between Tempests and the Ta 152s of JG 301, eye-witness reports are often difficult to reconcile.

On 17 April 16 'Doras' from I./JG 26, again led by Oberleutnant Dortenmann, ran into eight Tempests of No 80 Sqn, engaged in strafing MET near Lübeck. A whirling combat ensued, ranging between ground level and 6000 ft. Although Dortenmann stated that four Tempests were shot down, in fact only one was lost. In return, No 80 Sqn claimed two Fw 190s destroyed and a further two damaged, and it appears that I./JG 26 actually lost four 'Doras' in this combat.

From mid- to late April the Tempest wings made their final wartime moves. On the 20th No 135 Wing squadrons flew into their first German Base, B109 Quackenbrück, while No 122 Wing squadrons landed at their final wartime base, B152 Fassberg, six days later. Weather disrupted operations during the last week of hostilities, but on 29 April No 486 Sqn had probably its most successful day when nine Bf 109s and Fw 190s were claimed in two combats. Many of these appear to have been from *Schlachtgeschwader* 151, a ground-attack training wing that had just been made operational. The end could not be far away.

The last days of hostilities were characterised by the variety of enemy aircraft encountered – Ju 52/3m, Ju 88, Ju 352, He 111, Do 217, Fi 156, Fw 44, Bv 138 and a yet to be identified flying boat all fell to the Tempests' guns as Luftwaffe pilots tried to reposition or simply flee to neutral territory in the face of Allied advances on two fronts. Those were just the aerial claims, for carnage was also wreaked on the Luftwaffes's last airfields – a process that had started in mid-April. As the highly effective flak weapons were concentrated around these targets, this was an extremely dangerous business, and several Tempest pilots lost their lives. Perhaps the most poignant loss was that of Flt Lt C G F Deck of No 222 Sqn, who was killed attacking Neumünster airfield on 19 April. He was the third son of a British-Argentine family to be killed while serving with the RAF, one of whom had been the first pilot to die in a Typhoon.

The last Tempest aerial combat victories came on 3 May, the ultimate claim – an Fw 44 at 2015 hrs – being credited to Flt Lt H K Hughes of No 3 Sqn (rather appropriately, as this unit had been involved in the first Tempest combat some 11 months earlier). The assault on enemy airfields, however, continued right up to the ceasefire on the evening of 4 May – Husum, Leck, Eggebek and Grossenbrode were all mercilessly strafed. The final Tempest attack targeted Schleswig airfield/seaplane base, where No 3 Sqn destroyed seven assorted types, damaging five more. Flt Lt Pierre Clostermann was able to add two Do 18s to the pair of Do 24s and a Ju 352 he had claimed at Grossenbrode the previous day.

Flg Off J Linzel, one of four Dutch pilots with No 33 Sqn in the last weeks of the war, alongside his usual aircraft (SN164/5R-U) at B109 Quackenbrück (*J Linzel via Drs P E van Loo*)

Many of the RAF bases were now receiving Luftwaffe visitors in various types, from Fieseler Storchs to Me 262s, flown by crews wishing to surrender. Two Ju 188s landed at Quackenbrück on the morning of 5 May 1945, and one of the crewmen that emerged from

the bombers raised a smile or two when he asked if he could pick up some laundry that he had left in a local village when operating from the base a few weeks earlier! Later in the day a scruffy figure arrived at B109 in a ‘borrowed car’, sporting swastikas and Lugers – Flt Sgt Allan Inglis of No 274 Sqn was back! Inglis had failed to return from a ‘weather recce and cannon test’ on 23 April after stretching the parameters of his sortie by strafing Eggebek, where he was shot down. He evaded capture after bailing out and commenced walking to Allied lines. Inglis later filed a combat report in which he detailed how he had shot down a Ju 188 and two Fw 190s before being hit by flak on his third attack on Eggebek airfield, where he had destroyed a Ju 88 and damaged a Ju 52/3m, and was then forced to bail out. Now commissioned, Inglis was awarded the DFC.

Including Inglis’ successes from 23 April, the final Tempest scoreboard, according to the official 2nd TAF claims log, had reached 240 destroyed in the air (three of these came on 7 June 1944 while the aircraft was still under ADGB control). The individual squadrons had recorded the following totals;

UNIT	TOTAL
No 3 Sqn	27
No 33 Sqn	8
No 56 Sqn	59
No 80 Sqn	37
No 222 Sqn	15
No 274 Sqn	31
No 486 Sqn	59
Wing Leaders	4

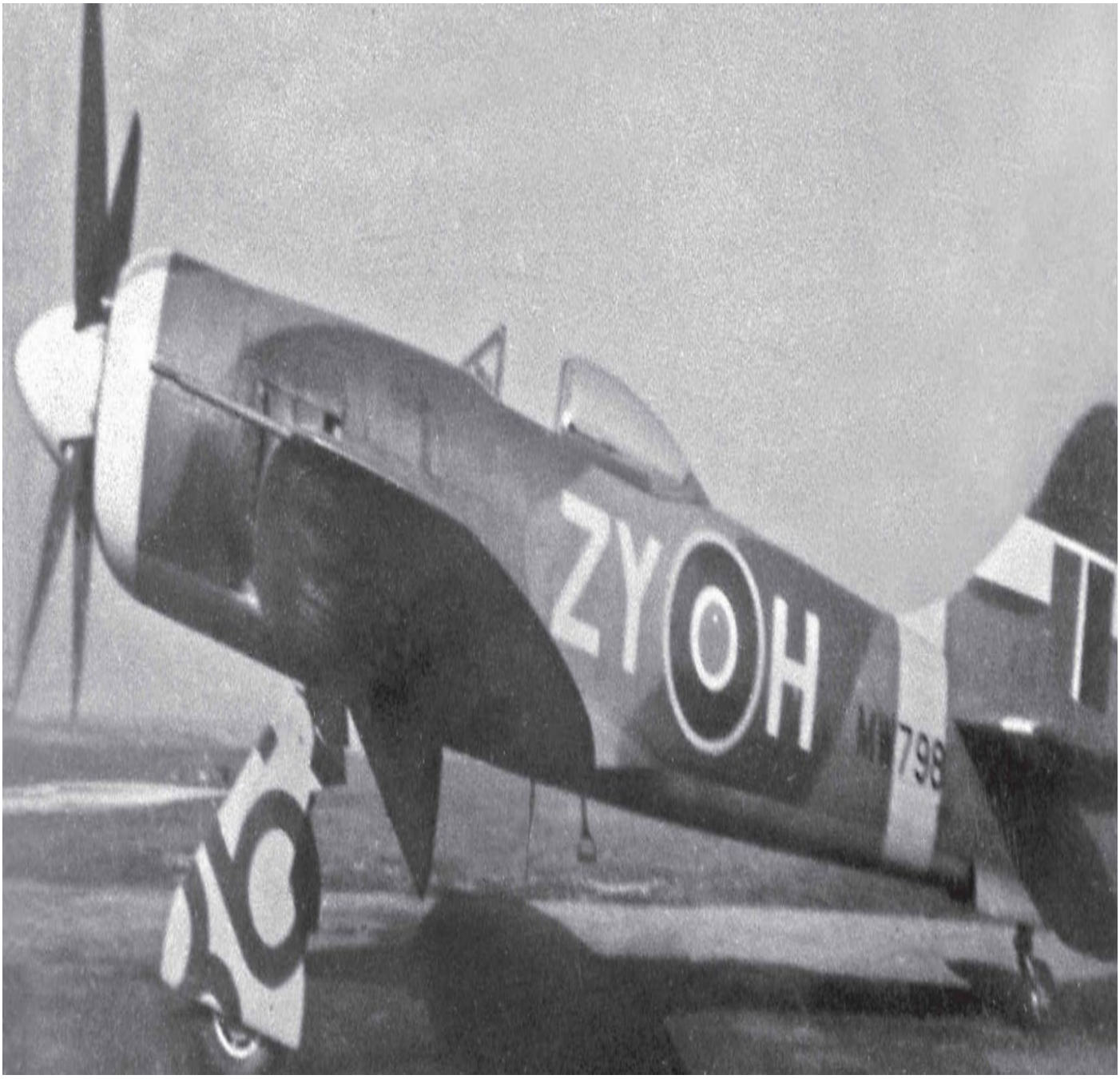
These victories had been achieved when the Tempests’ primary role had been to seek out ground targets. Just two statistics from No 122 Wing’s ORB will give some idea of the units’ prowess in this role. In February 1945, when rail targets had priority, no fewer than 484 locomotives were put out of action, and in April, when the focus had switched to road transport, 636 enemy vehicles were claimed to have been destroyed and a further 1476 damaged.

On the debit side, since the Tempests had arrived in 2nd TAF 155 had been destroyed in the course of operations, with the loss of 93 pilots, of whom 55 were killed and 38 saw the war out as PoWs. The Tempest aircraft losses are difficult to categorise owing to a number of uncertainties, however. It seems that of the 155 lost, nearly half may have been due to flak. Of the remainder, 50 could be put down to operational accidents (mainly engine failure) and only 26 were thought to be due to enemy fighters. This suggests a combat kill/loss ratio in excess of eight-to-one or, if just enemy single-seat fighters are included (191 Bf 109 and Fw 190s were claimed to have been shot down by Tempest pilots), nearer seven-to-one.

CHAPTER FOUR

TO INDIA

Whilst much effort had been made to get the Tempest V into service, it was still regarded as an interim measure, with the Mk II being considered the ultimate Tempest. The sleek Mk I fell victim to wartime planning exigencies and further work on this, potentially the best Tempest variant, was abandoned.



The second operational unit to receive the Tempest II was No 247 Sqn at Chilbolton. MW798/ZY-H was one of the first examples to arrive, in September 1945. The white identity markings on the spinner, nose cowling, fin/rudder and tailplane were not ACSEA markings, as sometimes stated, but special Tempest identity markings, based on those carried by USAAF Thunderbolts. They were intended to help distinguish the Tempest II from its expected adversary, the Fw 190 (*No 247 Sqn Association*)

The first prototype of the Mk II, LA602, eventually flew on 28 June 1943. Like the Mk I and Mk V prototypes, it began life with a Typhoon-style fin and rudder. The Mk II was

powered by a Bristol Centaurus Mk IV air-cooled radial engine, rated at 2520 hp, rigidly mounted and driving a four-bladed propeller. Carburettor air intakes were sited in the leading edges of both wings adjacent to the fuselage, and an oil cooler with a leading edge intake was mounted in the inner section of the starboard wing.

Serious engine vibration was soon apparent, and this was to be the Mk II's main problem during the early days of the programme. The second Mk II, LA607, flew on 18 September 1943 and was assigned to engine development. The engine originally projected for the production Mk II was the Centaurus XII, but protracted delays with this version placed it beyond the timescale required for Mk II production. In addition, the answer to the engine vibration was found to lie in a six-point rubber-packed replacement for the original eight-point rigid mounting, and this was unsuitable for the Centaurus XII, so production plans settled on the Centaurus V, which had a similar output to the Mk IV.

In May 1944 LA602 was delivered to the A&AEE at Boscombe Down for assessment. It was not up to production standard, particularly in respect of engine mountings and exhaust system, both of which were still under development, and it was armed with Hispano Mk II cannons with protruding barrels (like the Tempest V Series I), whereas the production version would have the shorter-barrelled Mk V cannons. The aeroplane was found to be generally satisfactory, but many small faults were highlighted.

Dimensionally, the Mk II was, of course, very similar to the Mk V – wingspan was identical, but length was increased by nine inches, to 34 ft 5 in. Fully loaded, the weight was up by only 20 lb to 14,500 lb. There were all-round increases in performance – maximum speed was measured at 442 mph at 15,200 ft and climb to this level took four-and-a-half minutes, as opposed to the Mk V's five minutes. Service ceiling was also improved – 37,500 ft. The main improvements required were lighter ailerons and the complete eradication of engine vibration. These problems were eventually achieved with the fitting of spring-tab ailerons and improved engine mountings.

Originally, the Tempest II was to have been built by the Gloster Aircraft Company, as Hawker was committed to Mk V production and could not build the new variant at the required rate. However, continuing demand for the Gloster-built Typhoon, then suffering its highest loss rate in 2nd TAF, coupled with the prospect of Meteor production, meant that its contract for 300 aircraft had to be transferred to a new sub-contractor. The Bristol Aeroplane Company, whose engine division was responsible for the Centaurus, was chosen, but it would be February 1945 before the first Tempests produced at the manufacturer's new plant at Banwell, near Bristol, came off the line. By then Hawker's own production line at Langley had started turning out Mk IIs alongside Mk Vs, the first aircraft having been completed in October 1944 – much later than planned. The initial six examples joined the two prototypes and JN750 (a Mk V converted into a Mk II) to expedite service clearance of the type.

By now the Tempest II had been selected for use in Southeast Asia as a replacement for the RAF's ageing Hurricanes and lease-lend Thunderbolts. Six aircraft (MW801 to MW806) were flown out to Khartoum in Sudan in April 1945 for intensive flying trials.

Whilst these tropical trials were still in progress, the first Mk IIs, which had been steadily stockpiled at MUs, were released for service, the first examples for frontline units

going to Nos 183 and 247 Sqns – two Typhoon units that had been withdrawn from 2nd TAF in Germany and were now destined for Burma. However, just three weeks after No 183 Sqn received its first Tempests, the end of the war against Japan cut back Air Command South East Asia's (ACSEA) re-equipment plans and the Mk IIs, which were now pouring off the production lines, were delivered to MUs for temporary storage.

Sqn Ldr Frank Jensen glances at the camera as he prepares to climb into his Tempest II MW800/HF-V prior to leading No 54 Sqn from Chilbolton to take part in a ‘Victory Day’ flypast in June 1946 (*Grp Capt F W M Jensen*)

Meanwhile, the two squadrons that had equipped with Mk IIs remained in the UK, No 183 Sqn being renumbered as No 54 Sqn in November 1945. Bristol’s production order was cut back to 50 aircraft (and 20 of these were actually assembled by Hawker from Bristol-built components), while Hawker’s orders were also reduced, final production of this version totalling 452 aircraft.

The Tempest II required careful handling on landing. A crosswind gust at Odiham on 27 August 1946 was too much for HF-T/MW832. The undercarriage collapsed, rendering the airframe ‘Category B’. It was duly repaired but saw no

The Tempest did not feature in Fighter Command's jet-oriented post-war plans and No 247 Sqn received Vampire F 1s – the first unit to do so – as soon as they became available in April 1946. No 54 Sqn had to soldier on with its Tempests for another six months. Meanwhile, it performed a useful role as the only Tempest-equipped unit in the country, providing conversion training for pilots destined for Tempests in the Middle East.

FAR EASTERN PLANS REVIVED

ACSEA's Tempest re-equipment programme was activated again in December 1945, and in the next 18 months no fewer than 180 Tempest IIs were shipped out to India. The Tempests were reassembled and prepared for service by No 320 MU at RAF Drigh Road, near Karachi, and four RAF units (Nos 5, 20, 30 and 152 Sqns) earmarked for conversion to the type.

Sqn Ldr Frank Murphy had been posted to Hawker Aircraft as a test pilot following a successful tour flying Typhoons with No 486 Sqn. He stayed with the company in the same role after the war, and later related;

'I went out to Drigh Road to brief the MU test pilots on the Tempest, and as the squadrons equipped I spent a short time with each, giving demonstrations, lectures and so on. They were quite experienced squadrons, but they had some trouble with the Tempest at first because it was a difficult aeroplane when landing, especially if you had a bit of a crosswind. The reason why it varied from the Tempest V was that the wider nose [on the Mk II] for the radial engine made the airflow over the rear fuselage quite different when the tail dropped after landing, or when you made a three-point landing. The airflow over the fin was not enough to keep the aircraft straight and you had to use full rudder or sometimes brake. A high crosswind made the problem worse, and a ground loop could result.

'Indian airfields were not very forgiving as they had monsoon ditches down each side, not far from the runway. So they had a lot of prangs, often wiping off undercarriage legs. The answer was to do a "wheeler" landing, which give you time to line things up before the tail dropped or even, on occasions when a long runway was available, to land with less flap, when you'd get more air flow over the tail surfaces and the rudder was more effective.'

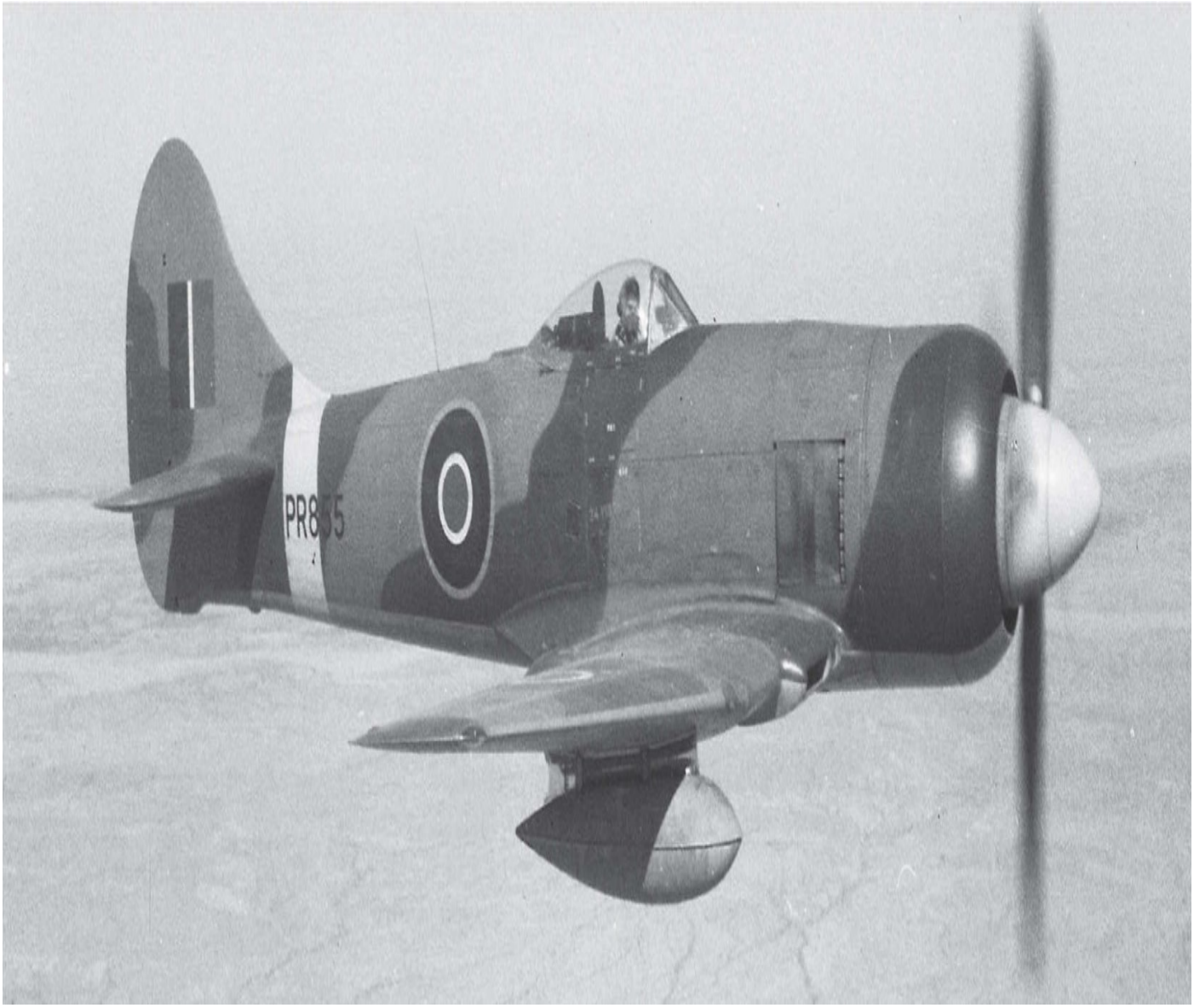
On 5 March 1946 the first Tempest IIs for No 5 Sqn arrived at Bhopal to replace the unit's Thunderbolts. There must have been a measure of concern over the new equipment as the Squadron ORB records that Frank Murphy, who arrived along with the first three Tempests, gave a confidence-boosting demonstration. 'A mere ten minutes but that was enough to impress on us all the versatility of this aircraft. To climb, loop and roll off the deck and the turning circle at 450 mph shook us all, and if any doubts were held they have now been dispelled'.

Flt Lt Douglas Coxhead, leaning on the wing of UM-X/PR604 at far left, had test-flown and ferried many of No 320 MU's Tempest output prior to assisting each of the RAF squadrons in India with their conversion to the Tempest II. He is seen here later, as a flight commander and acting CO of No 152 Sqn, along with his pilots and Bristol Engines and Hawker representatives Messrs Newman (standing, second left) and Wiggington (front left). Coxhead was awarded an AFC for his outstanding work (*A J B Harding*)

Among No 5 Sqn's pilots was another former Typhoon pilot, Flt Lt Harry Pears, who recalled;

'Every pilot I met took to the Mk II immediately and appreciated its ability in the ground attack role. Following a move to Puna, in real "Brown job" territory, the use of

Army ranges soon brought the squadron up to a high standard of live firing. Many live demonstrations were given to local army formations and others elsewhere in southern India. Tribal disturbances on the North West Frontier took the squadron to Risalpur and Peshawar, where again the use of firing ranges kept the shooting standard at a high level. Some dummy operations were flown over very mountainous terrain to “scare” the tribesman, and the odd sortie with solid RP heads and ball ammunition was undertaken.



Flt Lt Barry Byrne ‘air-tests’ Tempest II PR855 on 31 December 1946 following maintenance by No 320 MU (*B Byrne*)

‘“A” Flight, detached to the fort at Miramshah, was called on for sorties similar to those flown by Westland Wapitis between the wars. ROD [Road Open Day] patrols in support of convoys supplying outposts, along with R/T and visual checks of the outposts, were interspersed with weapons training on the airstrip’s own range. Armed aircraft were at standby during daylight hours every day, and at the end of each day’s flying the Tempests were moved into the fort and placed in individual hangers originally built for Wapitis.’

On 13 November 1946 No 152 Sqn at Risalpur provided six Tempests to take part in a firepower demonstration at the Staff College at Quetta. To mark the occasion each of the six Tempests had the squadron crest painted on their nose cowlings and traditional flight colours (red for A Flight and blue for B flight) were applied to the spinners, as seen here on UM-D PR772 and UM-O PR794 (*Sqn Ldr D J M Coxhead*)

At No 320 MU two former Typhoon pilots, Flt Lts Douglas Coxhead and Barry Byrne, performed much of the testing of newly assembled Tempests and ferried the aircraft out to squadron bases. Coxhead, who had also flown Tempest Vs with ‘Treble Two’ in the last weeks of the war, stayed on with each squadron to help acquaint them with their new

acquisitions;

‘We lost some pilots here and there in India, but few Tempest IIs went down. It was rough country. One test-pilot force landed 12 miles from base and started to walk back, and although we soon found his aircraft there was no sign of him. Later, ground searchers found a shoe, and that was all. The Sind desert was no place to walk across at night. After that “Peewee” Judge went down with engine failure, but was retrieved okay, having stayed in his aircraft after a belly-landing.

‘Later, after I had been posted to No 152 Sqn as a flight commander, I led a demonstration for the Staff College at Quetta, where a buckled fairing meant I had to fly all the way back at 190 mph, with the undercarriage down. As a result, I ran out of fuel, and was forced to land at the old deserted strip at Tank, where, fortunately there was an abandoned “Dak” from which I was able to drain some fuel. This was much to the delight of the local tribesman, who seemed to think I was milking the beast! They didn’t seem too keen to let me go, so as soon as I started the Tempest, with lots of smiling and waving, I wheeled it round and tore off without even fastening my straps!’

Tempest II PR536/HN-O of No 20 Sqn was transferred to the RIAF in September 1947, becoming HA457. After ten years of active service it was retired, becoming an airfield decoy. It survived in this role until 1977, when it was put up for disposal. Eventually, the fighter was returned to the UK and restored as a static exhibit by the RAF Museum, Hendon (*via A Lamb*)

The wartime organisation ACSEA encompassed both the RAF and USAAF but, with peace well established, it was disbanded at the end of September 1946. The RAF elements were reorganised under a new authority, Air Command Far East, which set about adjusting its forces to peacetime requirements. Accordingly, on 13 January 1947, India Command HQ gave orders that production of Tempests was to cease. Work on those aircraft that had started was to be completed, and when the aeroplanes had been assembled they were to be delivered to No 307 MU for storage.

The fort at Miramshah had hangars built within the walls, originally to house pre-war Westland Wapitis. They were just large enough to accommodate No 5 Sqn's Tempests, except for their propellers. In the foreground is PR723/OQ-V (*Sqn Ldr H Pears*)

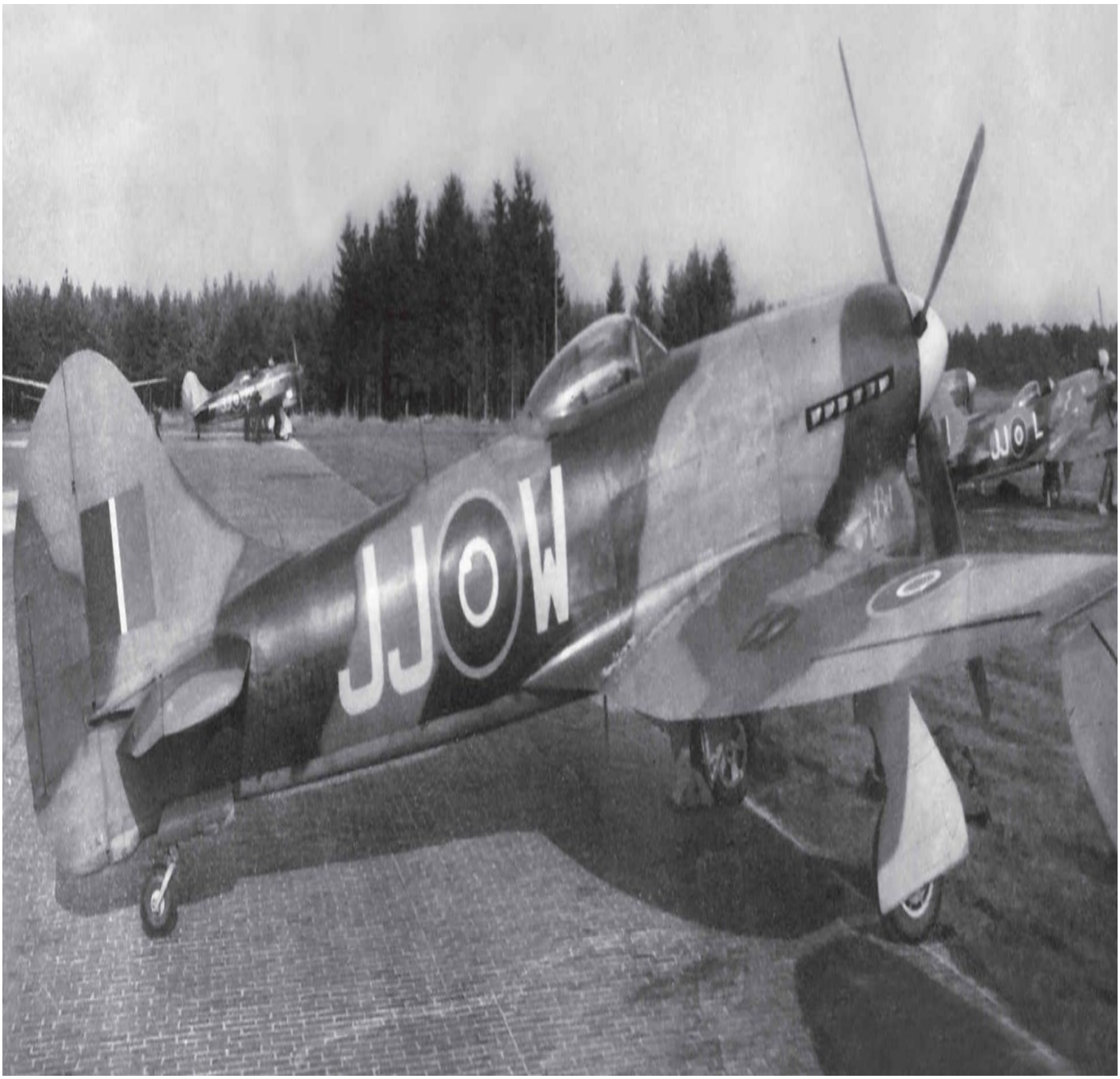
By then, Royal Indian Air Force (RIAF) units had already begun equipping with the Tempest II, No 3 Sqn RIAF commencing in September 1946, followed by No 8 Sqn RIAF in November. These changes were soon followed by disbandment of two of the RAF Tempest units, with No 30 Sqn disbanding in December 1946 and No 152 the following month, releasing Tempests for the RIAF. By May 1947 No 20 Sqn was the only RAF Tempest squadron remaining prepared for operations. No 5 Sqn was now acting as an operational conversion unit for the RIAF, converting pilots from Nos 1 and 9 Sqns RIAF in May and June. During this period No 20 Sqn suffered the RAF's only Tempest pilot fatality in India when Flg Off R D Thornton's aircraft dived into the ground during night flying practice. There was little if any evidence to suggest the cause, and it was thought the pilot may have been attempting to adjust his compass and inadvertently pushed the aircraft into a dive.

With the partition of India and Pakistan looming, No 20 Sqn disbanded on the last day of July 1947, rapidly followed by No 5 Sqn 24 hours later. No 20 Sqn's Tempests were ferried to Chakeri for storage, pending re-issue to No 4 Sqn RIAF, No 5 Sqn handing over its Tempests to the two Indian squadrons they had been training. When Partition formally took place on 15 August 1947, all the RAF Tempest II stocks (and various other types) were divided between the RIAF and Royal Pakistani Air Force – the former received 124 Tempests and the latter 35. Both air forces would later purchase more (refurbished) Tempests from Hawker and in 1951-52, yet more from stocks by then surplus to RAF requirements.

CHAPTER FIVE

COLD WAR FIGHTER-BOMBER

Peace in Europe arrived and left all the RAF's Tempest squadrons, just seven in number, in Germany – Nos 3, 56, 80 and 486 Sqns in No 122 Wing, part of No 83 Group, at B152 Fassberg, and Nos 33, 222 and 274 Sqns in No 135 Wing, part of No 84 Group, at B109 Quackenbrück. As with most of 2nd TAF's other units, they enjoyed a few days of celebration before settling down to a routine of training flights, patrols, flag-waving sorties and the occasional massive flypast.



No 174 Sqn, which had already been disbanded, reformed and disbanded in 1945, was reformed again in September 1945 by simply renumbering No 274 Sqn at Warmwell. Still wearing No 274 Sqn's codes (which No 174 Sqn retained, along with the lightning flash), EJ555/JJ-W was photographed at Dedelstorf later that same month (*Stuart Mackay*)

For 2nd TAF, reorganisation was the priority, and although many squadrons were

disbanded or returned to the UK, the Tempest units were untouched. No 486 Sqn broke its long, battle-hardened association with No 122 Wing just a day after VE-Day when it was posted to No 125 Wing at B160 Kastrup, in Denmark. This was about as good as it got in the post-war 2nd TAF, as it meant exchanging war-torn Germany, struggling with food resources and a population trying to come to terms with defeat and their ravaged homeland, for a comparative land of 'milk and honey' with enthusiastic, welcoming, citizens. Most importantly for the young airmen there was no curb on fraternisation!

With Tempest, Typhoon and two Spitfire squadrons, No 125 Wing had been located at Kastrup as part of the forces stationed in Denmark to ensure that country's security during the post-war upheavals. In July 1945 it was disbanded and replaced at Kastrup by No 122 Wing, with its wartime Tempest squadrons (bar No 486 Sqn, which joined No 124 Wing at B158 Lübeck) and two former No 124 Wing Typhoon units.

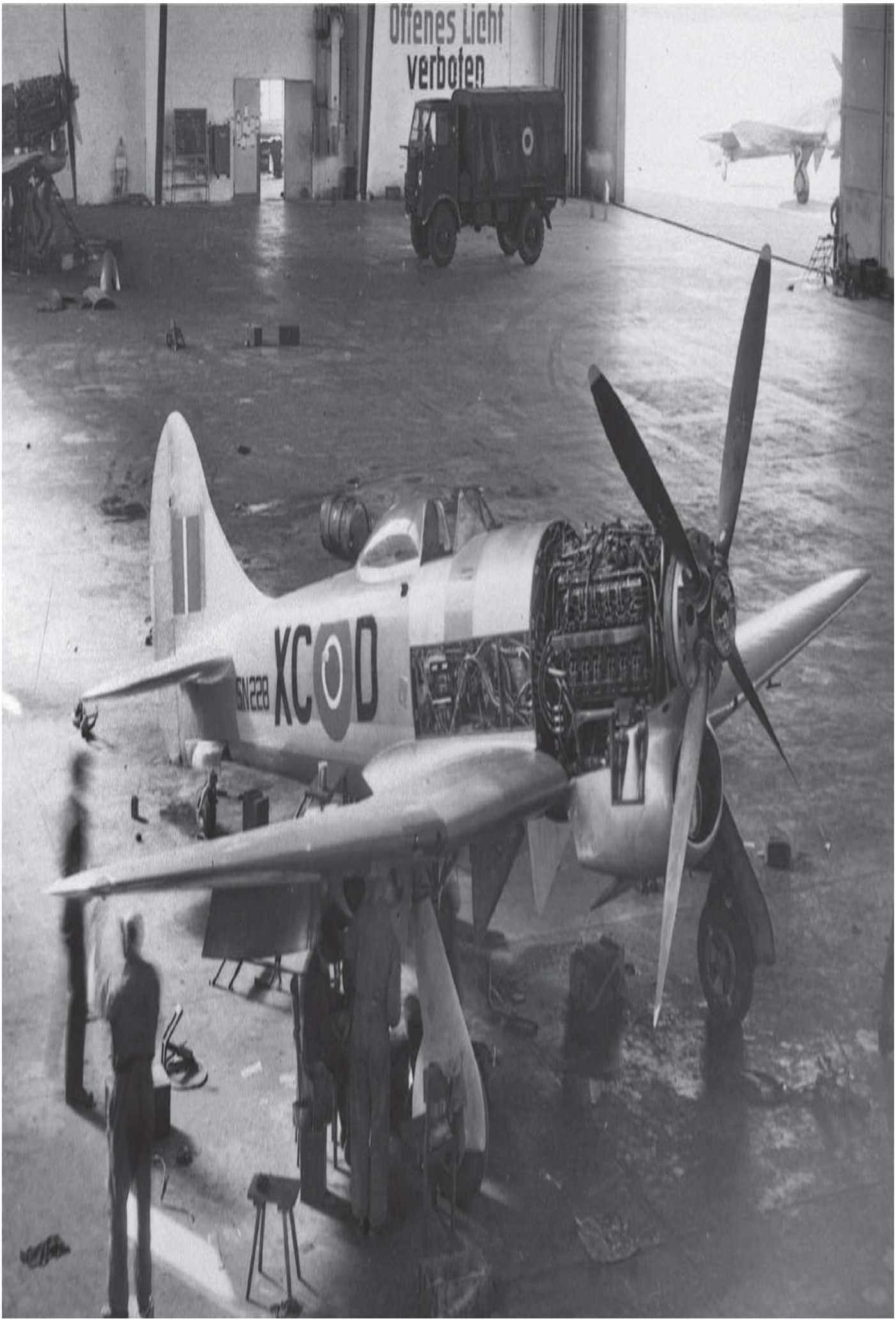
Before No 125 Wing was disbanded, however, a memorable occasion took place at Kastrup, where the population's enthusiasm for the RAF had prompted the organisation of an air display. Such events are hazardous undertakings, and although the display went well, No 486 Sqn's Flg Off 'Ginger' Eagleson, successful V1 killer and now acting flight commander, had a very narrow escape whilst practicing for the flypast. Wing panels on his Tempest had apparently not been correctly secured and, flipping open in flight, caused his aircraft to flick roll, fortunately in a direction away from the formation. The Tempest was totally out of control and Eagleson had to fight hard to escape, eventually forcing his way out with his feet on the instrument panel. Nevertheless, the display eventually went ahead on 1 July 1945, much to the delight of the Danes, including the Queen of Denmark.

'Wing formation' had already claimed the lives of two Tempest pilots of No 3 Sqn when they had collided while practising for a flypast in honour of Marshal Georgy Zhukov, who was due to meet Gen Dwight D Eisenhower and Field Marshal Bernard Montgomery. The Tempest units and other squadrons spent nearly a month perfecting their skills before the event finally took place on 10 June, with 2nd TAF, Fighter and Bomber Commands and the USAAF's Eighth and Ninth Air Forces contributing more than 3000 aircraft between them.

No 135 Wing had left B109 for B155 Dedelstorf in mid-June, and whilst there it suffered a distressing loss. New Zealander Flt Lt R J 'Bluey' Dall, who was 'A' flight commander in No 33 Sqn and a veteran of a previous tour flying Typhoons in Fighter Command, received a posting notice for Burma and flew over to R16 Hildesheim to visit old friends before his departure, due the next day. As he left he performed a slow roll in his Tempest. When inverted the nose dropped, the Tempest flicked, recovered, flicked again and crashed onto the airfield. 'Bluey' was killed instantly.

Even in their hangar, No 33 Sqn's Tempests have their engines shrouded against the cold. In the centre is SN213/5R-S, the first Tempest to be stripped of camouflage in BAFO, in February 1946. In the foreground, with a pennant visible below its windscreen, is the CO's aircraft EJ886/5R-N, which was also stripped of camouflage in due course (*W McKerrow*)

As the summer progressed more moves took place following the formation of the British Air Force of Occupation (BAFO), as 2nd TAF had been renamed on 15 July 1945. Burma was the subject of many rumours at this time, and they proved to be of some substance when two Typhoon squadrons were flown back to the UK for conversion to Tempest IIs (as related in Chapter Four) and a probable destination in the Far East. No 486 Sqn was rumoured to be the next, but the dropping of two atomic bombs in August and the Japanese surrender shortly thereafter put an end to any such moves. However, more changes were afoot for the Tempest squadrons in September.


Offenes Licht
verboten
SM228
XC D

Not to be outdone, No 26 Sqn's CO, Sqn Ldr Ambrose, also had his Tempest V (SN228/XC-D) stripped of paint and polished, circa May 1946. Soon replaced by a Tempest II, SN228 was transferred to No 33 Sqn as its new 5R-S (*via W Matusiak*)

First affected was No 222 Sqn, which left Dedelstorf on the 3rd and flew, via Manston, to Westonzoyland in Somerset. On 10 September the squadron moved to Chilbolton, joining the two units converting to Tempest IIs there. Together, they took part in the Battle of Britain flypast over London on 15 September. This was the only occasion Tempest IIs and Vs and Typhoons would be seen together in any significant numbers. Returning to Westonzoyland later the same day, 'Treble Two' spent a few more weeks there before leaving its Tempests and proceeding to Molesworth, in Cambridgeshire, for re-equipment with Gloster Meteor jets.

Meanwhile, back in Germany, No 486 Sqn had handed its Tempests over to ex-Spitfire unit No 41 Sqn, whose pilots were not too pleased to receive 12 war-weary Tempests in place of their cherished Spitfire XIVs. In the UK, No 274 Sqn, attending APC at Warmwell, in Dorset, received the unwelcome news that it was being renumbered as No 174 Sqn on 7 September. Although this was a time of many movements, disbandments and renumberings, most had a visible logic behind the changes, but this one remains obscure (to the author at least!). No 274 Sqn had a distinguished war record that stretched back to August 1940 when it was equipped with Gladiators in Egypt. No 174 Sqn, on the other hand, had not formed until March 1942 (with Hurricanes) and had been disbanded in April 1945 when 2nd TAF first began to shrink.

The former 2nd TAF wings were reshaped too, so that by the end of September 1945 No 84 Group was the main Tempest user, with No 135 Wing (still at Dedelstorf) being home to Nos 3, 33, 56 and 174 Sqns. In No 83 Group, Tempest units now numbered just two, Nos 41 and 80 Sqns, resident with No 124 Wing at Lübeck. All the Typhoon squadrons had left Germany and the Tempest squadrons had to take on their predecessors' fighter-bomber role and in particular the rocket-firing capability, which, although available in the Tempest since late 1944, had not yet been exploited. Although 'zero-length' RP launchers were now available, the BAFO squadrons, no doubt due to post-war economies, soon found themselves flying Tempests equipped with Mk IIIa lightweight rails that had been fitted to Typhoons since the end of 1944.

In October 1945 No 56 Sqn was pleased to receive a visit from a Tempest II for demonstration purposes. The shape of things to come, yes, but not for ten months – and by then No 56 Sqn had changed its number! The CO, Sqn Ldr M P Kilburn, was treated to 'a quick thrash'. His assessment? 'It rattles but it's pretty good'!

As the German winter set in the opportunities for flying dwindled, with no less than 19 days deemed unsuitable in November. Reorganisation was not over, with No 3 Sqn moving across to No 123 Wing, now at Wunstorf, in January 1946. The last changes (for some time at least) followed on 1 April 1946 when No 174 Sqn was disbanded and Fighter Command reclaimed two of its famous number plates, Nos 41 and 56, renumbering as Nos 26 and 16 Sqns, respectively.

A unit often missing from published lists of Tempest users is No 41 Sqn. Having swapped Spitfire XIVs for second-hand Tempests in September 1945, it operated the Hawker fighter for seven months before renumbering as No 26 Sqn when Fighter Command reclaimed its '41' number plate. Flt Lt Peter Cowell, in the cockpit of SN341/EB-A, awaits the loading of concrete-headed practice RPs (*Air Commodore J W Frost*)

Mk IIs AT LAST

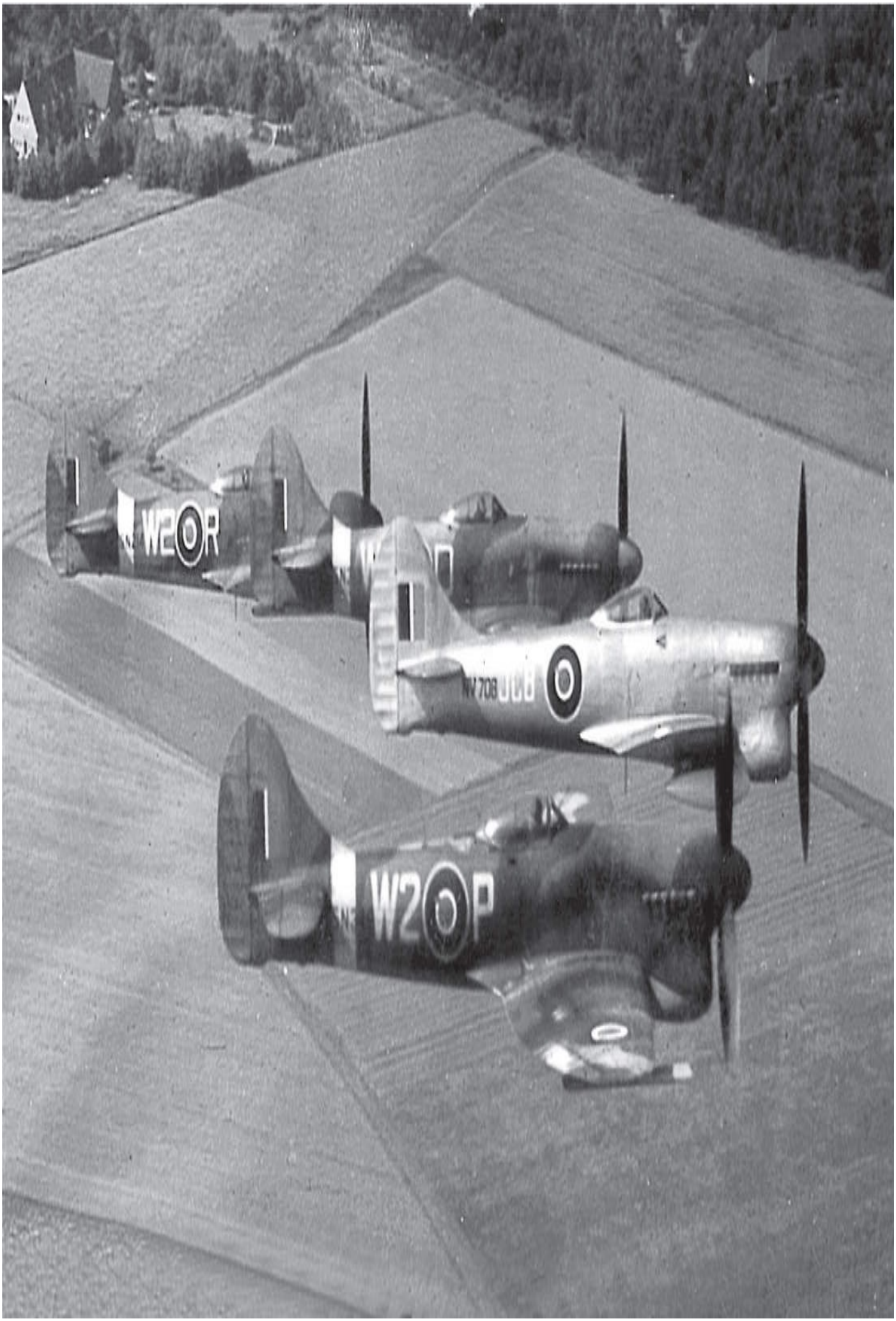
When the RAF in India had received its allotment of Tempest IIs it was the turn of one of the BAFO Tempest V wings, No 135, to begin re-equipping with the newer version. The first unit to relinquish its Mk Vs was No 26 Sqn, its first Mk IIs arriving on 19 June 1946 at Gatow. Full conversion to the new type did not take place until July 1946, however, by which time the squadron was based at Fassberg. In due course, the other two No 135 Wing squadrons received their Mk IIs, but the No 123 Wing units, Nos 3 and 80 Sqns, soldiered on with their Mk Vs until they were eventually replaced in 1948 by Vampires and Spitfire F 24s, respectively.

As in India, the Mk II was generally welcomed. Sqn Ldr 'Poppa' Ambrose, who took command of No 41 Sqn with Mk Vs in January 1946, stayed with it when the unit was renumbered as No 26 Sqn and then oversaw the re-equipment with the Mk II, had this to say;

Sqn Ldr H ‘Poppa’ Ambrose (fourth from left), CO of No 26 Sqn, poses with a relaxed group of his pilots shortly before his departure in May 1947. His ‘Aluminium’-painted Tempest, with squadron leader’s pennant and red/white spinner, was Bristol-built airframe MW416/XC-D (*Air Commodore J W Frost*)

‘The Tempest V was an improvement on the Typhoon, although the benefits were difficult to identify at first as I felt so at home on the Typhoon that the Tempest felt a little strange. Eventually I came to appreciate the Tempest for its improved control and stability, and of course it was quite a bit faster. It was a good gun platform and was suitably stable as a rocket-firing aircraft – by using the gyro gunsight horizon you could almost guarantee

to hit a tank two times with every four rockets you fired when practising on the range. We re-equipped with the Tempest II in 1946, which turned out to be a very popular aeroplane, and an even better platform for rocket firing. It was not easy to land, and we found “wheeler” landings were advisable. In fact we could manage formation landings with 12 aircraft on the runway simultaneously. A visiting group captain from headquarters noted this with some horror, and declared he would return to show us how to three-point a Tempest II – he duly returned a few days later but ground-looped on landing, so we never did see his Tempest technique!’


W2R
W2P

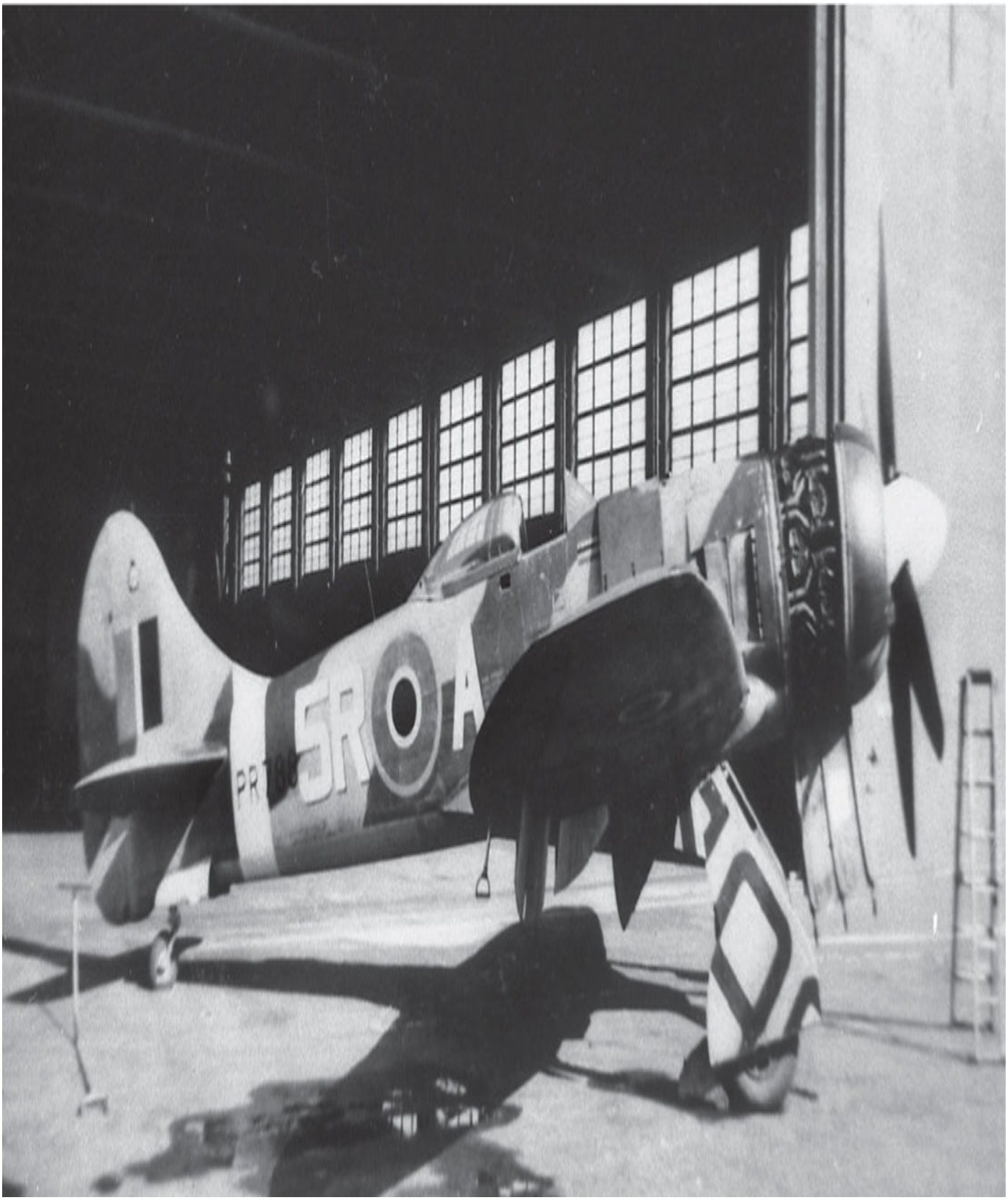
A section of No 80 Sqn Tempests led by Wg Cdr J C Button in his personally marked NV708/JCB. These aircraft were taking part in an exercise with the Army when photographed on 1 June 1946. The three Tempests of No 80 Sqn are SN349/W2-P, SN313/W2-D and SN214/W2-R (*Flt Lt S J Perkins via Colin Ford, No 268 Sqn Historian*)

For the Tempest squadrons it was now the routine of peacetime flying – the full range of flying exercises, weapons training, joint exercises with the army and practice at the APCs (established first at Sylt and then Lübeck). As well as the latter two stations, the Tempest squadrons rotated through Gatow, Berlin's airfield in the British sector, which brought its own problems. Allied airspace was strictly limited, and intrusions into Soviet territory, accidental or not, brought dispute. For example, on 16 March 1947 WO Angus Mackay's Tempest (PR667/EG-S) had engine problems whilst on a ground-controlled approach to Gatow. With his windscreen totally obscured by oil, Mackay was fortunate to pull off a wheels-up forced landing in a large field. Unfortunately, it turned out to be Soviet territory. An RAF ground party managed to retrieve the pilot and the gyro gunsight (which had been fitted to Tempests post-war) before the Russian guard party arrived. The Tempest had been assessed as repairable but after two months was written off, as it had not been returned. Two months after that it was returned but was not repaired.

No 16 Sqn CO Sqn Ldr D C Usher usually flew Tempest II PR736/EG-M, which carried his pennant below the windscreen and a squadron badge on the engine cowling (*via Air Commodore G Pitchfork*)

Although the Tempest squadrons changed bases, albeit temporarily, every few months and were well practised in doing so, HQ BAFO decided a more truly mobile reserve force that could be directed to any location required (much like the 2nd TAF wings in 1944-45) was desirable. In order to test the procedures and give experience to the units, on 8 May No 135 Wing was directed to Ahlhorn, a former Luftwaffe airfield disused since shortly after the war. Realistically, No 135 Wing's three squadrons were accommodated under

canvas, and after 11 full days in which more than 500 hours of intensive flying were clocked up, including ‘Tac Rs’ and ‘cab-ranks’, they returned to Fassberg.

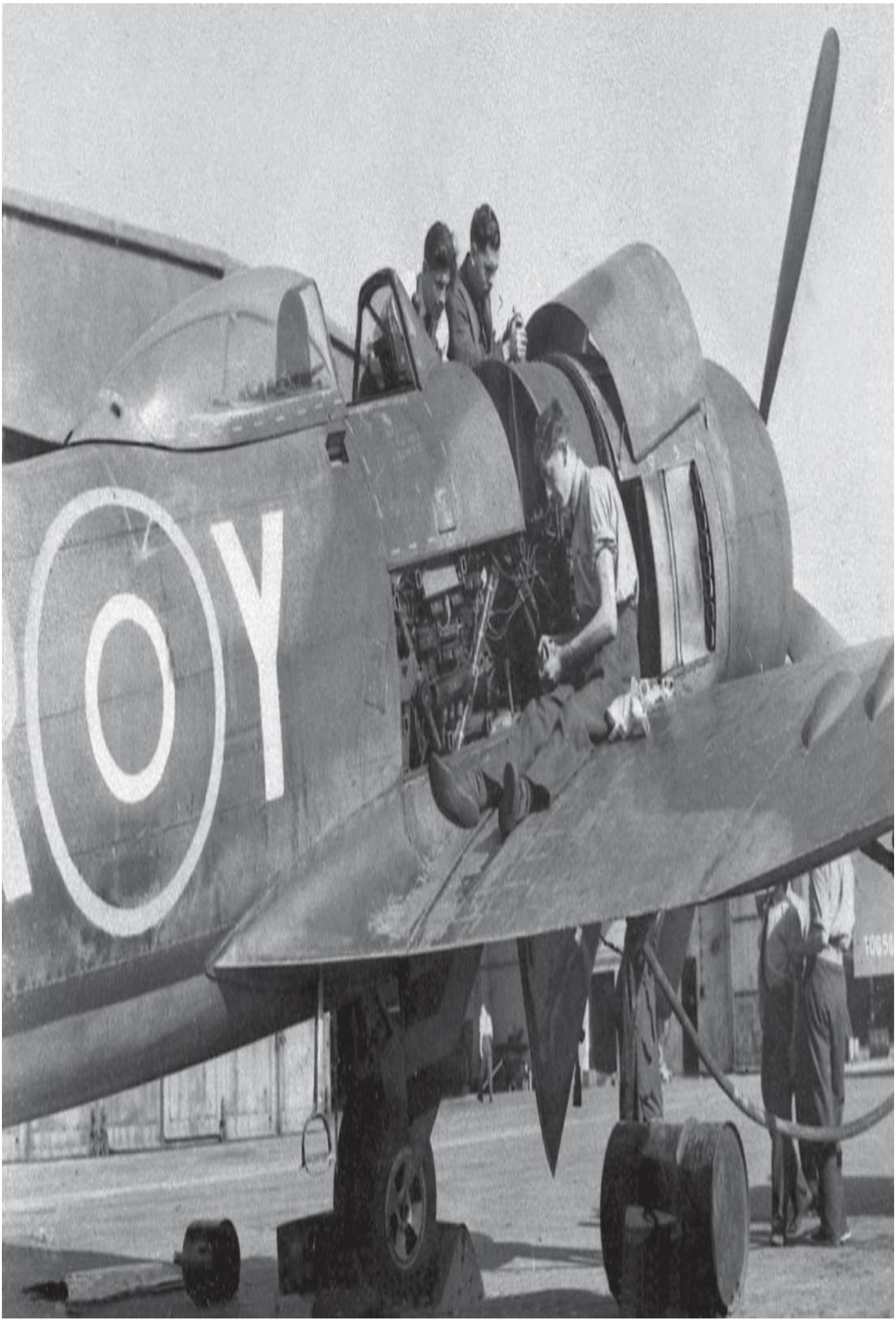


At the end of February 1948 Sqn Ldr R N G Allen led four Tempest F 2s of No 33 Sqn to Thorney Island in West Sussex, where they were based for a week to give a demonstration at the School of Land/Air Warfare at Old Sarum in Wiltshire. Sqn Ldr Allen’s 5R-A/PR788 had been decorated with show-shading on the code letters for the visit. The Tempests were supported by 18 groundcrew, who flew in from Gütersloh in an Avro York (*A Fraser*)

The ‘mobile reserve’ plan had proved its worth, and just in time (perhaps no coincidence) for trouble was brewing on the Yugoslavia/Italian border. Accordingly,

Operation *Diagram* was launched, which, for No 135 Wing, meant demonstrating their mobility prowess by operating from Zeltweg, in Austria – a little over 30 minutes' flying time from Trieste, the centre of the unrest. In order to demonstrate their presence in no uncertain (and apparently previously undocumented) way, four Tempests led by No 26 Sqn's Flt Lt Jack Frost flew southwest, then down the Adriatic, to come streaking in at very low level, just clearing the rooftop of President Josep Tito's HQ! After a month of operating from Zeltweg, No 135 Wing returned to Fassberg, but not for too long, as the wing relocated to Gütersloh at the end of the following November – No 123 Wing was still based at Wunstorf at this time.

The new year brought the beginning of the end of the Tempest's service as a fighter-bomber in Germany. In January 1948 No 80 Sqn exchanged its ageing Mk Vs for Spitfire F 24s, while No 3 Sqn continued for a few months with its Tempests until April, when the unit received three Vampire F 1s for evaluation, soon followed by complete re-equipment with the type. The fighter-bomber variant of the Vampire, the FB 5, was not available until December when No 16 Sqn exchanged its Tempests F 2s (as they were now known) for the new jets. No 26 Sqn soldiered on until May 1949, when it too converted to the Vampire FB 5.

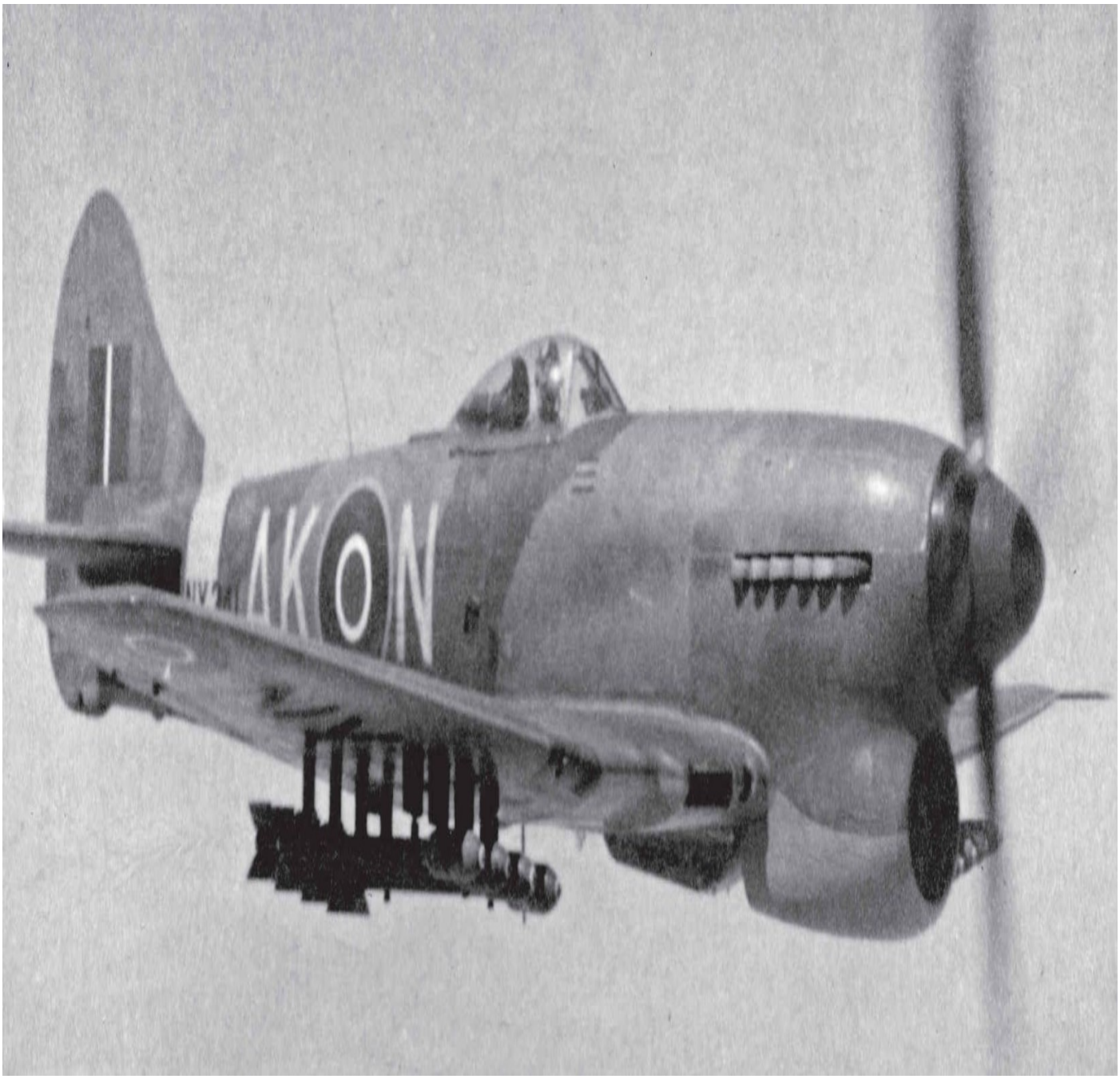

OY

Groundcrew servicing 5R-Y of No 33 Sqn at Gatow in September 1947

CHAPTER SIX

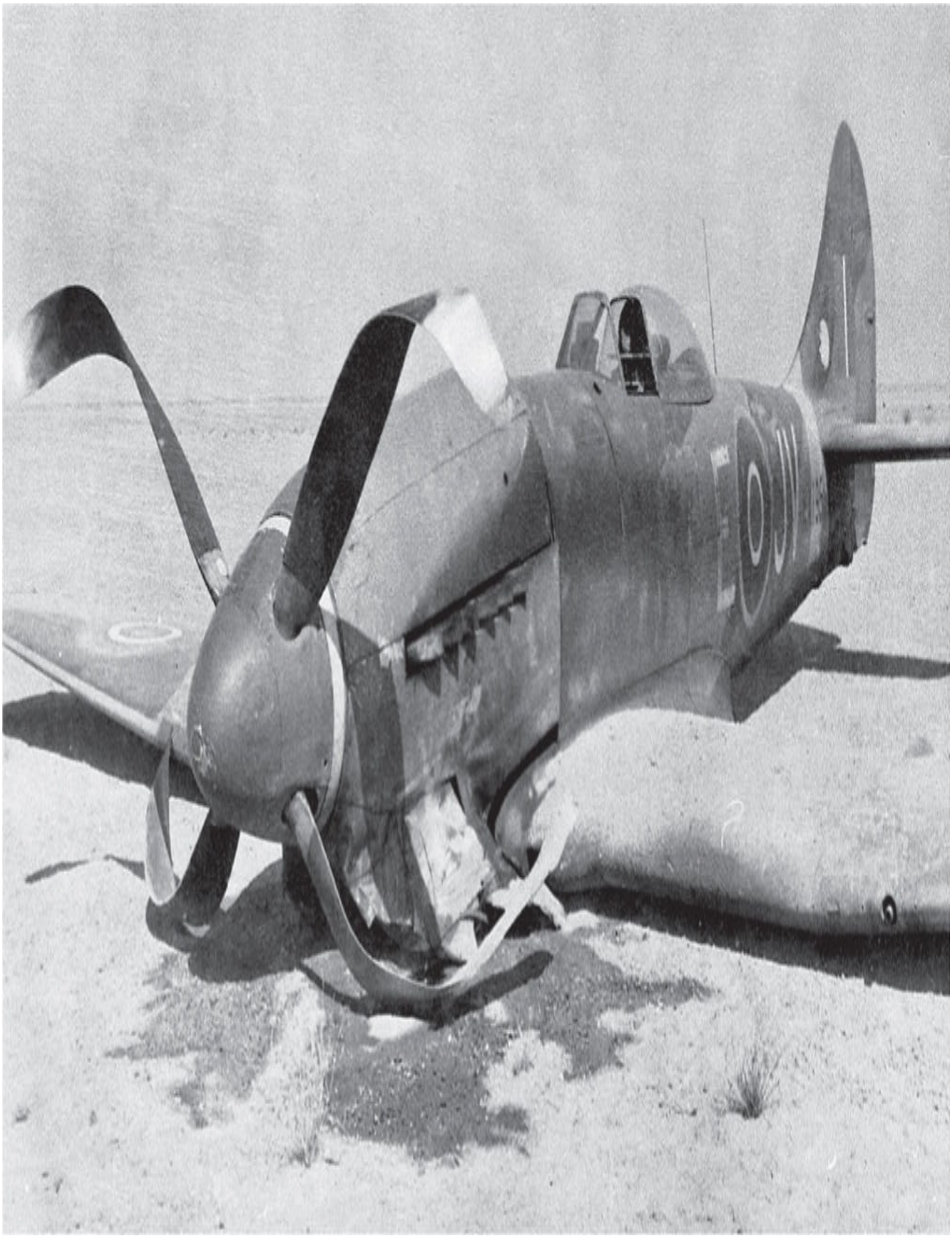
TEMPEST VI – MIDDLE EAST FIGHTER-BOMBER

During 1944, although the Tempest II had been seen as the desired production variant, it was also recognised that their number would be limited by the availability of Centaurus engines. Development and production of the Sabre-powered Tempest would have to continue, therefore, in order to make up the deficit. A new version of the Napier Sabre – the Mk V – with nearly ten percent more power output over the Tempest V's Sabre II was fitted in HM595. This aeroplane duly became the prototype Tempest VI, first flying in this guise on 9 May 1944. The new engine's 2340 hp required greater cooling capacity, and this was provided by removing the oil cooler and carburettor air intake from the centre of the radiator. The resulting space was filled with additional radiator area. The carburettor air intakes were repositioned in the leading edges of the inner wings and the oil cooler was now fitted behind the radiator.



Sqn Ldr D C Colebrook, who commanded No 213 Sqn between January 1947 and March 1948, flies in close formation with his section leader. This photograph provides a clear view of the tropical filter (behind the radiator fairing) and ‘zero-length’ RP launchers fitted to his personal Tempest, NX241/AK-N (*No 213 Sqn records*)

Early in the aircraft’s development the RAF decided that the Mk VI would be optimised for use in the Middle East. To expedite the project, Tempest V EJ841 was modified to Mk VI standard for trials at the A&AEE and with Napier, and the tropicalised Mk V EJ759 was sent out to Khartoum for engine cooling and air cleaner trials. When cooling was quickly shown to be inadequate, a subsidiary oil cooler was fitted in the leading edge of the starboard wing as per the Tempest II.



This is the reason why Tempest VIs carried two water bottles strapped to the decking behind the pilot's head armour. However, on 19 September 1947, No 6 Sqn's WO D V Cooper was fortunate that his engine failure, and subsequent forced landing in inhospitable surroundings, occurred only one mile from RAF Fayid (*A D Liquorish*)

The air cleaner was similar to that fitted on production Typhoons from September 1944, and it was installed beneath the fuselage, between the wings. During ground running and

taxiing, when sand and dust were a problem, air for the carburettor was drawn in via the filter system, but after takeoff, retraction of the undercarriage automatically initiated transfer to air from the leading edge intakes. When the undercarriage was lowered the reverse took place, although there was a manual switch in the cockpit that could override this system in the event of, for example, a dust-laden atmosphere. The aircraft was also equipped with desert survival gear that included two cylinders of water mounted in the fuselage behind the pilot's head armour.

Orders were placed for 306 aircraft built by Hawker at Langley in a contract that had originally called for the production of Tempest I aircraft. The total to be built was reduced to 250 Mk VIs, and this was eventually cut to 142. The first production aircraft were not delivered until July 1945, and Hawker and Napier retained the first seven for their own trials. Full performance and cooling trials were carried out by NX119 at Khartoum between December 1945 and February 1946. The more powerful Sabre gave the Mk VI a top speed of 438 mph at 17,800 ft and a service ceiling of 38,000 ft. Deliveries took place throughout 1946, mostly to No 20 MU at RAF Aston Down, in Gloucestershire – this unit was also responsible for the preparation and storage of other marks of Tempest.

As with previous variants, the Tempest VI was cleared for the carriage of 250, 500 and 1000 lb bombs, or up to eight RPs. Unlike the other marks, however, the Mk VI was fitted with Mk VIII RP (often called 'zero-length') launchers. Long-range tanks, either 45- or 90-gallon, could be carried, one under each wing.

DELIVERIES TO THE MIDDLE EAST

Following the cessation of World War 2, the RAF fighter and fighter-bomber squadrons that remained in the Middle East were equipped with wartime variants of the Spitfire, Mustang, Mosquito and even the Hurricane. These aircraft would be replaced with Tempest VIs and later variants of Spitfires. Sufficient Tempests for the process to begin were not available, however, until the end of 1946.

Supply of Tempest pilots was also a problem. While a hardcore of wartime-experienced Typhoon and Tempest pilots remained in the RAF, there was no longer any Tempest conversion unit. Accordingly, No 54 Sqn, by then (September 1946) the sole Tempest squadron in the UK, relocated to Molesworth and provided the hands-on Tempest experience (albeit on Centaurus-engined rather than Sabre-powered Tempests) for 19 pilots with postings to the Middle East. At the end of the year the new Tempest VIs were flown out to Fayid, in Egypt, usually in formations of four, led by a Ferry Unit Mosquito providing navigational assistance. One Tempest was lost on 25 February 1947 when Flt Lt D W Sturgeon was forced to bail out into the sea north of Benghazi following engine failure. Fortunately, he was picked up.

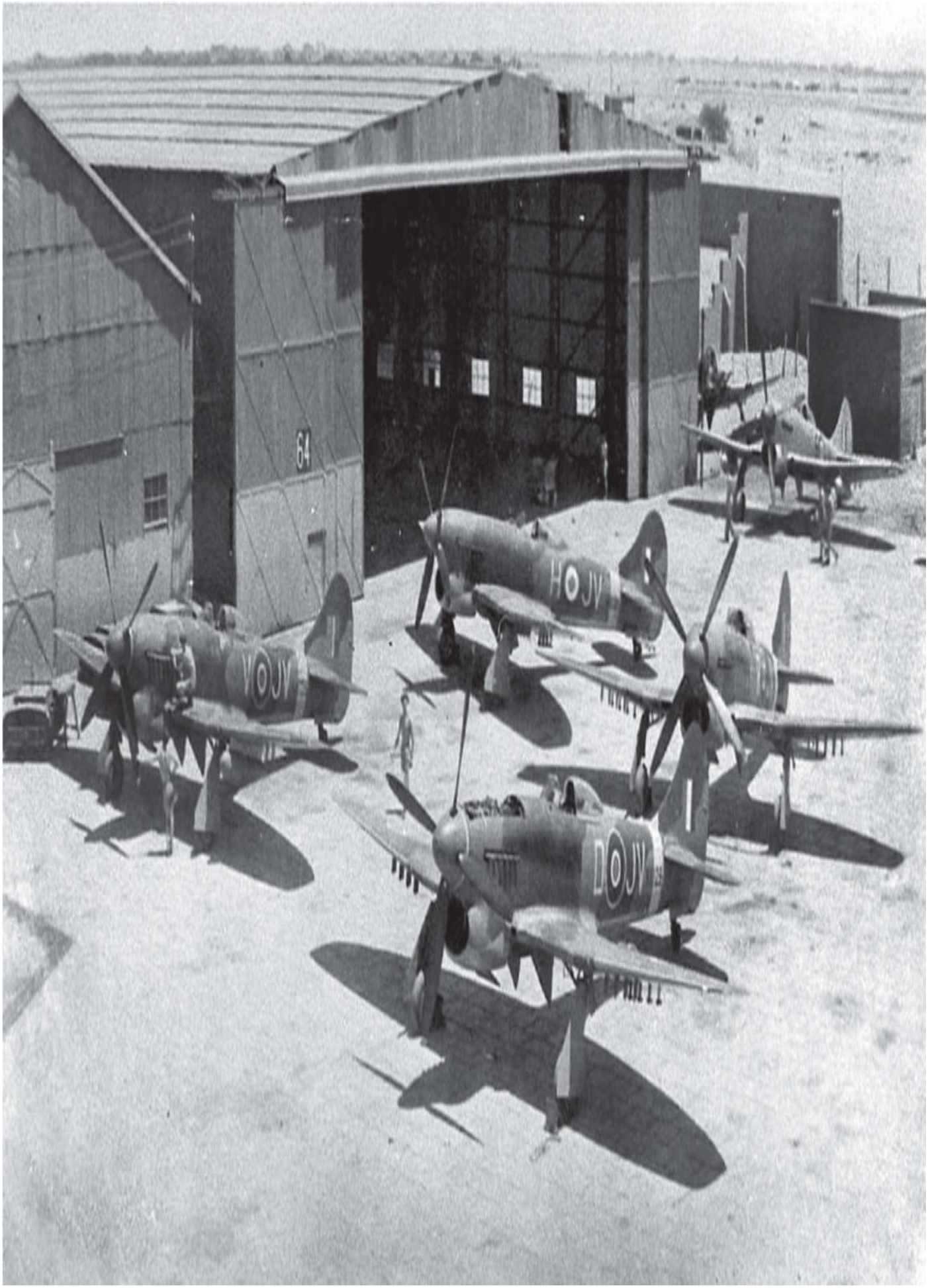
The first unit to welcome the Mk VI was No 249 Sqn at Habbaniya, in Iraq, where it had been based since June 1946 – conveniently placed in what was seen as an area of political unrest. The squadron's first Tempest, which arrived on 23 December 1946, was warmly welcomed, as its previous equipment of Mosquito FB 26s had proven unsuitable for operation in the Middle East and had been withdrawn from use four months earlier. Posted in to command was Sqn Ldr J I Kilmartin, who had made his name as a Hurricane ace in the Battle of France and later led a Typhoon wing in 2nd TAF. One of the flight

commanders was Flt Lt P F Steib, who had flown Typhoons with No 257 Sqn and Mustangs with No 122 Sqn during the war. In peacetime he had commanded No 93 Sqn, also Mustang-equipped, but in the shrinking RAF he had, like his commanding officer, temporarily dropped rank. In fact the squadron had also shrunk as it was now on a ‘cadre’ basis, with a complement of just eight Tempests, ten pilots and 50 other personnel.

On the last day of the year No 6 Sqn’s first Tempests arrived at Nicosia, in Cyprus. One was immediately test-flown by the unit’s commander, Sqn Ldr C K Gray, who was another extremely experienced fighter pilot who had finished his wartime flying with No 124 Sqn on Spitfire IXs, continuing with that unit after the war when it converted to Meteor IIIs. Somewhat in contrast, No 6 Sqn had the distinction of being the last operational Hurricane unit in the RAF, operating Spitfire IXs alongside its ageing Hurricane IVs until the Tempests arrived.

The third unit to receive Tempest VIs was No 213 Sqn, also based at RAF Nicosia. Its first three aircraft arrived on 21 January 1947, the new CO, Sqn Ldr D C Colebrook (a former 2nd TAF Typhoon pilot who had also benefitted from No 54 Sqn’s ‘academy’ at Molesworth), having arrived earlier in the month. The squadron pilots were impressed with the size and speed of their new mounts, in particular the fact that the Tempest VIs cruised some 70 mph faster than the Mustang IVs they replaced. All was not good news, however, as the Tempests were plagued by oil leaks and generally demanded a lot more maintenance that the Mustangs.

A fourth unit, No 8 Sqn in Aden, received Tempests in March 1947. These aircraft were soon in action, making a punitive raid on the village of Al Husein, where a Government Agent had been shot. Policing operations by No 8 Sqn and the other Tempest units followed a pattern set by the pre-war colonial squadrons. When strikes against dissident tribes were to be carried out, leaflets were dropped (usually 48 hours in advance) warning of the intention. Thus it was empty villages that were on the receiving end of the Tempests’ firepower.



No 6 Sqn’s Tempests outside their hangar at Khartoum in January 1948. Markings were just beginning to change when this photograph was taken, with post-war roundels applied to NX191/JV-H and an unidentified Tempest at the rear in the

new ‘Aluminium’ scheme. NX134/JV-V and NX129/JV-D retain their original delivery schemes, however, although the latter aircraft has a new fin flash (*A D Liquorish*)

Four months later, No 8 Sqn carried out two RP attacks against Bal Harith fort. On the first mission the unit had lost a Tempest and its pilot, Flg Off Freddie Tanner, when, after firing its RPs, the Tempest flick-rolled three times and crashed. The cause was not known for certain, but it was thought to have been the result of a high-speed stall during pull-out. In November No 8 Sqn put its RPs to good use again, this time supplemented by 1000-lb bombs, when a small war was carried out against the Quteibi. This rebellious tribe had been extorting payment for safe passage through its area for years, but had now taken to looting villages. After two-and-a-half days of attacks on their chief’s HQ at Thumier, some 60 miles north of Aden, the troublemakers were subdued. Back in 1940, three months of bombing had failed to achieve this!

Seen here at the controls of Tempest F 6 NX186/AK-K of No 213 Sqn, WO W D M Tuck had previously flown the Hawker fighter with No 56 Sqn in 1945, although somewhat briefly. Having been hit by groundfire and forced to land in enemy territory, Tuck spent the last month of the war as a PoW. This Tempest, photographed circa March 1948, is in the 'Aluminium' painted finish introduced on an opportunity basis (i.e. when aircraft were subject to major servicing) in 1948 (*W D M Tuck*)

In July 1947, the Nicosia-based squadrons Nos 6 and 213 came under the control of the newly reformed No 324 Wing. Nicosia would remain the APC for the Tempest squadrons, while No 324 Wing would, in the coming months, move to Shallufa, in Egypt, Khartoum and eventually Deversoir, also in Egypt – in effect, wherever unrest in the Middle East dictated.

Typical of the operations carried out by the Tempests was No 213 Sqn's detachment of

three Tempests and supporting groundcrew to Asmara between late March and early May 1948. The purpose was to support the King's Own African Rifles in operations against the Shifta – lawless wandering tribesmen robbing and terrorising the communities southwest of Asmara, in Eritrea. The support did not comprise firepower, but reconnaissance, communications, patrols and even herding cattle back towards their rightful owners. Meanwhile, No 213 Sqn's place at Khartoum had been taken by a new Tempest unit, No 39 Sqn, which had flown out eight aircraft from Manston in July 1948. Soon after arrival three Tempests were detached to Asmara to continue No 213 Sqn's role against the Shifta. This short-lived unit disbanded at the end of February 1949.

In August 1948 No 213 Sqn left Khartoum for Mogadishu, in Italian Somaliland, to cover another British withdrawal this time from the Ogaden. Since April 1948, 90 gallon drop tanks (known as 'bathtubs') had been available, giving a range of 1100 miles or a patrol time of up to four-anda-half hours. Thus, when No 213 Sqn departed for Deversoir in October 1948, No 8 Sqn was able to cover Somaliland from Aden. During October No 8 Sqn was particularly busy. During a 13-day period seven pilots flew 107 hours against the Mansuri in Wadi Mirria, attacking 16 forts and destroying or rendering 15 of them uninhabitable. A total of 468 rockets had been fired, with an average error later calculated as six yards! This was astonishing accuracy as, for example, during wartime APC the average error recorded by RP Typhoon squadrons was in the region of 30 yards. No doubt continual practice and improved techniques had brought this impressive increase in accuracy. The CO of a Tempest F 2 squadron in Germany at this time has also stated that an experienced pilot could hit a tank on the ranges with one out of every two RPs fired.

No 6 Sqn pilots gather in front of one of their Tempests during armament training at Nicosia in January 1949. Sqn Ldr Denis Crowley-Milling is seated in the front row, third from the left, with his flight commanders on the ends of the same row, Flt Lts Brian Spragg to the left, and Dennis Luke to the right. All three had been wartime Typhoon pilots, as had Flt Lt Peter Thorne, one of the course instructors, seated next to Luke (*A D Liquorish*)

Having spent a year training firstly with the new aircraft and then with RPs, No 249 Sqn at Habbaniya was kept on alert throughout the first half of 1948 because of unrest in Iraq caused by the unstable situation in Palestine. On 13 April the unit was ordered to despatch four rocket-armed Tempests to Palestine, where trouble between Jewish and Arab factions might require their attention. Within three hours three Tempests were on their way to Ramat David, with another pair being sent the following day, although one soon returned to leave a detachment of four. As it happened, rocket strikes were not required, and the Tempests returned to Habbaniya on 27 April. They were ordered back, however, to fly reconnaissance sorties during the build-up to the British withdrawal and declaration of the new state of Israel. The latter event took place on 15 May 1948 and, two days later, with no troubles requiring their attention, No 249 Sqn's detachment returned to Khartoum.

Operations against troublesome tribesmen continued in Aden, and were not without their cost. On 20 August 1948 WO P2 Bowyer was killed when he crashed during an RP attack in very similar circumstances to Flg Off Tanner's loss a year earlier. As if to underline the problem, just four days later WO P2 Colin Peters of No 249 Sqn was killed when he stalled and crashed in NX209 during air-to-ground firing practice.

In the wake of these crashes, and other concerns voiced about the Tempest's airworthiness, No 8 Sqn was visited by Mediterranean/Middle East Command's highly decorated safety officer, Sqn Ldr J R Baldwin. They could hardly have had a better qualified investigator for, in addition to his lengthy Typhoon experience, he had, post-war, been Officer Commanding A&AEE's Fighter Test Squadron (for which he had been awarded the Air Force Cross) and had temporary command of No 249 Sqn for a month while it awaited its new CO. Baldwin carefully tested No 8 Sqn's Tempests and all were given a clean bill of health except for NX130/J, which was deemed to be a 'rogue' aircraft and duly despatched to No 107 MU for storage. Sqn Ldr F W M Jensen's long-term mount, NX131/A, was noted as being 'an extraordinary aircraft'.

SINAI SKIRMISH

Meanwhile, Israel had been fighting its War of Independence against the combined forces of Syria, Egypt, Jordan, Lebanon and Iraq. RAF forces in the area were not directly involved until 7 January 1949 – the day a ceasefire between Israel and Egypt was due to commence at 1600 hrs – when reconnaissance flights were mounted to investigate activity on the border. Four Spitfire FR 18s of No 208 Sqn were attracted by smoke rising from an Israeli military column recently strafed by Egyptian Spitfires. The RAF aircraft were fired on by the Israeli gunners, who no doubt feared further attacks. Two Spitfires were hit, forcing one of the pilots to bail out, but while the others circled, their attention on the downed pilot, they were 'bounced' by two Israeli Spitfires flown by ex-Bell test pilot Chalmers 'Slick' Goodlin and Canadian ace John McElroy. Tactical advantage and experience told and the three remaining British Spitfires were quickly shot down. One pilot was killed (WO P2 R Sayers), two captured by the Israelis and one returned via Egyptian forces.

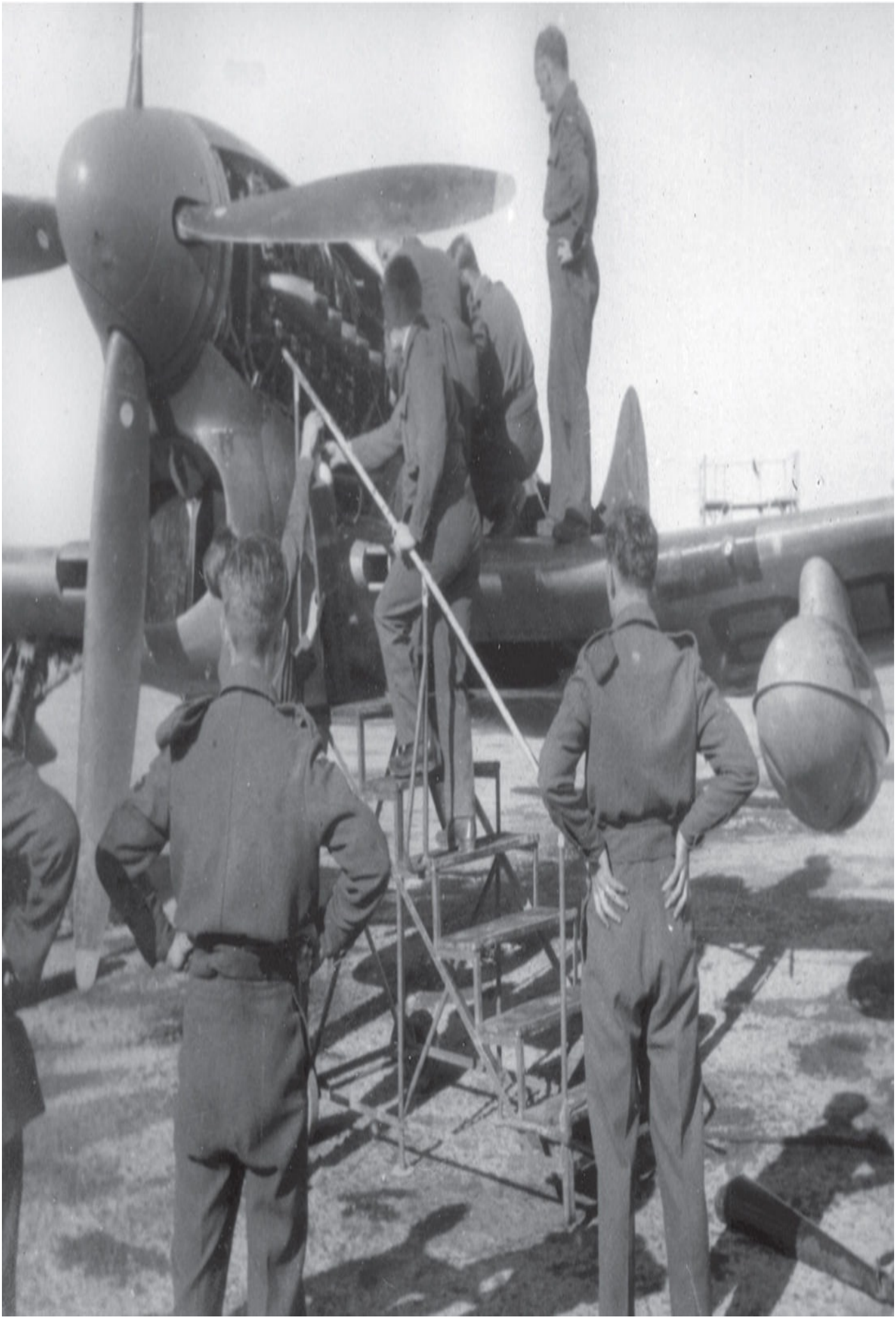
LADY ANN

WO A D Liquorish (inevitably known as ‘Sticka’) of No 6 Sqn seated in the cockpit of Tempest F 6 NX134/JV-T *LADY ANN*. This aircraft was damaged during the skirmish with Israeli Spitfires on 7 January 1949 (*A D Liquorish*)

When it became apparent that the No 208 Sqn patrol was not returning, four more of the unit’s Spitfires were despatched to search for their colleagues. Tempests of No 324 Wing at Fayid were also scrambled to provide an escort of no less than 16 fighters. Seven from No 213 Sqn led by the commanding officer of No 324 Wing, Grp Capt A F Anderson, gave cover from 6000 ft and eight from No 6 Sqn, led by their CO, Sqn Ldr Denis Crowley-Milling, provided top cover at 10,000 ft.

At the northern end of the border, near Rafah, Anderson spotted ‘five’ (actually four) Spitfires diving on his section, and called a break to starboard – the Israelis had mistaken the long-range tank-loaded Tempests for bomb-carrying Spitfires. No 213 Sqn’s Plt Off David Tattersfield fell victim to that first attack, his Tempest spinning to the desert floor streaming smoke. Then what should have been a one-sided encounter for the Tempest pilots descended into black farce.

As Crowley-Milling’s section dived to intercept the attackers they found they were unable to release their long-range tanks, severely hampering the Tempests’ manoeuvrability against their less powerful but more agile foe. As all formations became involved the confusion increased as No 208 Sqn’s Spitfires sported red spinners – the same colour as the Israelis. When No 213 Sqn’s Tempests did get into shooting positions their pilots discovered that they were unable to open fire – their guns were apparently uncocked. Flt Lt Brian Spragg of No 6 Sqn did manage a few bursts at one of the Spitfires, and indeed Ezer Weizman’s aircraft did receive minor damage. In return, Weizman got hits on one of the RAF fighters, almost certainly WO D ‘Sticka’ Liquorish’s Tempest, and two others were damaged.



Judging by the hands on hips, NX208 had some frustrating technical problem. It is fitted with 90-gallon tanks and was ferried back to the UK, only to spend three years with No 20 MU at Aston Down before being sold to the Ministry of Supply. It is believed that the aeroplane was expended in tests at the Proof and Experimental Establishment at Shoeburyness, in Essex (*A J Cranston*)

Lessons were certainly learned from this unfortunate encounter. Investigations showed that No 324 Wing had been stood down when the call to scramble came, and the No 213 Sqn groundcrews had taken the opportunity to remove the belt feed mechanisms from the Tempests for servicing! Yet at least one pilot jumped into the cockpit and removed the standard warning card ‘guns cocked’ before his hurried departure! The failure of long-range tanks (which were carried most of the time) to release was caused by continual tightening of the cradle arms after each flight, which put increasing pressure on the release pins so that it was virtually impossible to withdraw them (operated from the cockpit via a Bowden cable). The red spinners on No 208 Sqn’s Spitfires were promptly painted white.

HO

Resplendent in the new ‘Desert’ scheme, Tempest F.6 NX136/H of No 213 Sqn banks towards the camera, revealing the uppersurface pattern of Dark Earth and Light Sea Grey (actually a grey-green colour). Undersurfaces remained Medium Sea Grey. (*J D Gibson*)

In early March 1949 No 249 Sqn was informed of its imminent move to join No 324 Wing at Deversoir. This took place on 29 March, with only five Tempests making the flight (three were left unserviceable). Soon after their arrival ten extra aircraft were allocated to the squadron, including four from the recently disbanded No 39 Sqn. Most of the latter unit’s Tempests had been delivered in the current ‘silver’ scheme, and while some of the No 324 Wing aircraft had been repainted in this scheme since 1948, others were now stripped of all paint during the summer months.

However, by August 1949 a new ‘Desert’ scheme had been devised and a programme of repainting all the Tempest F 6s was initiated. The cynics would have taken this as an indication that the Tempests’ days were numbered and if so, they were right! On 17 September 1949 the first Vampire FB 5s arrived for No 6 Sqn and pilot conversion commenced. Tempest operations effectively ceased on 12 November 1949, leaving just air tests before ferry flights and disposal.

The remaining squadrons continued with their Tempests into 1950. There was an interesting challenge for No 249 Sqn’s pilots on 1 February when they took part in exercises with the Fleet Air Arm and found themselves up against Sea Furies and Fireflies. The squadron diarist claimed that their Tempests were superior to the opponents ‘in every way’, being able to turn inside the Sea Furies and outrun the Fireflies. However, time had all but run out for the Tempest F 6 as February saw No 213 Sqn’s conversion to Vampires complete. In March the last Tempests from Nos 8 and 249 Sqns set course for the UK and disposal, replaced by Bristol Brigands and Vampires, respectively.

EO
VZ190

The arrival of Vampires in the Middle East heralded the end of frontline service for the Sabre-engined Tempest variants. One of No 213 Sqn's first jets, Vampire FB 5 VZ190, is seen here parked alongside Tempest F 6 NX151/E at Deversoir in January 1950. The last Tempests departed for the UK the following March (*H Dent via Roger Lindsay*)

CHAPTER SEVEN

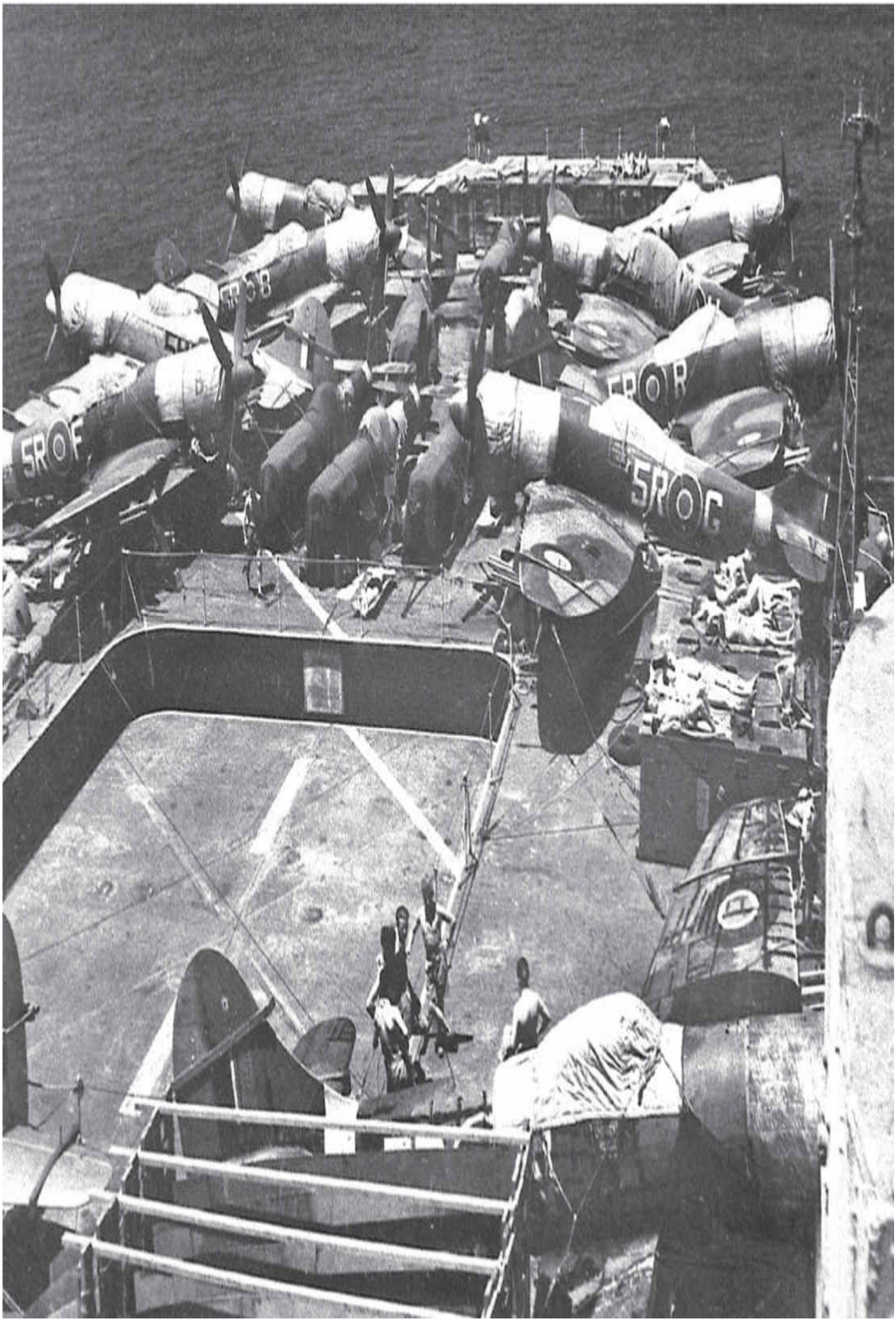
FIREDOG AND FAREWELL

By 1949 communist forces in Malaya had become a significant and increasing problem, and Operation *Firedog* was launched to provide air support for British ground forces attempting to counter the communist terrorists, or MNLA (Malayan National Liberation Army) as they styled themselves. The latter had bases hidden in the huge areas of jungle to the north of the Malayan mainland, from which they conducted classic guerrilla warfare, attacking isolated forces or communities and then melting away into the seemingly endless wilderness.

Shortly before No 33 Sqn converted to the Hornet some of its ‘Aluminium’-painted Tempests were re-camouflaged in the Long Range Day Fighter Scheme of Dark Green/Dark Sea Grey uppersurfaces and PRU Blue undersurfaces. This example, PR805/5R-S, was eventually sold to the PAF in November 1951 (*No 33 Sqn records*)

As part of *Firedog*, No 33 Sqn was withdrawn from Germany to reinforce the operation and replace Spitfire-equipped No 28 Sqn. The unit left Gütersloh on 2 July 1949 and flew via Manston to Renfrew, from where it boarded HMS *Ocean* for passage to Singapore. The squadron's Tempests were deck cargo for the month-long voyage. After preparation and test flights at Changi, in Singapore, in mid-August, No 33 Sqn flew to its new base at Butterworth, in Malaya, on 10 September 1949. By the end of the year the unit was fully operational, being tasked with maintaining four Tempests at four-hour readiness for strikes against the communist terrorists.

During the next 21 months many sorties were flown with rocket and cannon in support of army operations, with the aim of driving back the communist terrorists. Rarely were the latter's camps or villages visible, and the Tempests launched their rockets at map references supplied by the ground forces. The commanding officer, Sqn Ldr A K Furse, who had brought the squadron out from Germany, and led their operations for more than a year, was awarded the DFC in March 1951.


5R OF
5R OG

No 33 Sqn's Tempest F 2s were shipped to Malaya as deck cargo on board HMS *Ocean* in July 1949 – by 2 August they were in Seletar. Identifiable are PR852/5R-N (foreground), MW423/5R-G, MW416/5R-H (at the rear, in 'Aluminium' scheme), PR785/5R-F, PR782/5R-R and 5R-B, plus five other Tempests and a number of Spitfire F 24 fuselages. The latter were No 80 Sqn's aircraft on the way to Hong Kong (*No 33 Sqn Records*)

No 33 Sqn had brought a full complement of Tempests with it on *Ocean* and there had since been further deliveries, but attrition was quite high, mainly due to engine failures and landing accidents. The first full loss was in the former category, on 30 September 1949, when PR853/5R-K suffered piston and connecting rod failure during a dive-bombing exercise. This caused the propeller to fly off and Plt Off D T Parfitt was forced to land in a paddy field. Deemed unrecoverable, the Tempest was destroyed *in situ*. Parfitt was unhurt, but on 24 July 1950 WO P1 H E A Hearn was killed when he bailed out too low following engine failure. There was a further fatality on 16 November 1950 when Flg Off G J Swindells (who had flown Tempest Vs with No 56 Sqn in the last weeks of the war) overshot the runway into soft sand and his Tempest overturned.

Lack of spares became a problem too, and the end of frontline flying for the Tempest loomed. In March 1951 a Mosquito T 3 was delivered to the squadron to give the pilots some twin-engined experience, but the aircraft that was due to replace the Tempest, the de Havilland Hornet, was slow to arrive in any numbers. Indeed, although B Flight began conversion in April 1951, the Tempests remained in use for a further two months, flying the type's last operational sorties in the RAF on 6 June 1951. Ten of the Tempests were flown to Seletar, in Singapore, and after refurbishment were sold to the Pakistani Air Force (PAF).

TEMPEST SWANSONG

As the last of the Sabre-engined Tempests were withdrawn from the Middle Eastern units a new Sabre variant was entering service in Europe, albeit in a secondary role. The RAF had a requirement for a target-towing aircraft faster than the Martinets in current use, and with its high cruising speed and availability of surplus airframes, the Tempest V fitted the bill very well. Accordingly, commencing in December 1948, 80 Tempests were selected from stocks at Nos 5 MU at Kemble and nearby No 20 MU at Aston Down, both in Gloucestershire, and delivered to Hawker Aircraft at Langley for conversion to Tempest TT 5 standard. Some were almost new machines that had never seen service while others were war-damaged aircraft that had been under repair when the conflict ended and had been delivered into store when refurbishment was complete. It was more than a year before the first TT 5 was delivered, the aircraft going to the Central Gunnery School at Leconfield in East Yorkshire, and Acklington APC in Northumberland. Subsequent deliveries equipped Sylt APC in Germany and Nos 226, 229 and 233 OCUs in the UK.

A handful of No 33 Sqn's Tempests were already in the 'Aluminium' scheme when they arrived in Malaya, but from October 1949 the rest were similarly resprayed – including PR859/5R-Z seen here. Spinners were painted red for 'A' Flight or blue for 'B' Flight (*via A S Thomas*)

PR

Tempest F 2 PR771/5R-D of No 33 Sqn peels off to make a rocket attack against bandit positions in Malaya. It flew with this unit between August 1950 and June 1951 (*C Thomas*)

By far the major user was the APC (later Armament Practice Station) at Sylt, with half of all the production aircraft passing through the unit during its four-and-a-half years operating the TT 5. When the aircraft's service life in Germany came to an end in October 1954, the unit's remaining Tempests were flown back to No 20 MU at Aston Down. The last unit to give up its Tempests, in July 1955, was No 233 OCU at Pembrey in Wales. A number of high-ranking former Tempest pilots found excuses to visit Pembrey for a last trip in Hawker's magnificent fighter that had played such a significant part in the defence of the realm and taken on the best the Luftwaffe could offer in the final months of World War 2.

NV937
A
P
X
975

The last Tempests in Germany, these TT 5s of Sylt APS were photographed on 20 October 1954 immediately before all the unit's 16 remaining Tempests flew to No 20 MU at Aston Down for disposal. Many would be acquired by the Ministry of Supply and end their days as subjects for tests at the Proof and Experimental Establishment at Shoeburyness (*A J Cranston*)

APPENDICES

Tempest Fighter Operations and Tactics

The following information comes from several contemporary sources, but primarily from a report on 2nd TAF fighter operations compiled at the CFE just after the war.

The main role of the Tempest in 2nd TAF was to carry out ‘armed recces’, for which the aircraft was particularly well suited because of its great speed, firepower, long range and excellent vision. Two 45-gallon drop tanks were normally carried, and the aircraft relied on its four 20 mm cannon as offensive weapons. Late in the campaign a decision was made to allow Tempest squadrons to carry bombs, but only one unit – No 33 Sqn – used them in action, dropping 500-lb bombs in dive-bombing attacks on 3 and 4 May 1945. No 80 Sqn had practised dive-bombing at APC but returned to the front too late to use the weapons in anger. Tempests also carried out fighter sweeps and escorts to fighter-bombers. The optimum performance of the Tempest was achieved below 15,000 ft, where much of the action took place.

As the most profitable hunting grounds were up to 250 miles from base, two 45-gallon drop tanks were almost always carried. Turned on soon after takeoff, the tanks were used equally on the way out. The original policy was to jettison them before attacks were made due to the possibility of tanks exploding when hit by flak. However, the tanks did not always release and, as the explosive threat never seemed to materialise, it became usual to keep them attached throughout the sortie (although they would be turned off during the attack phase). Keeping the tanks on greatly reduced turnaround time between sorties and had little effect on performance (typically reducing top speed by 5-10 mph).

FORMATIONS FLOWN

‘Armed recces’ were usually flown by eight aircraft, and once they were lined up on the runway it would take less than three minutes for them to depart – rolling in pairs, echelon starboard. This was the secret to a quick form-up once in the air, although the leader of each pair had to be particularly careful to avoid swinging during his takeoff run. This entailed opening the throttle steadily, with rudder corrections made promptly as required. The aim was to close up into a tight formation as soon as possible, and this was achieved by the leader flying straight ahead until at 1000 ft or so, then turning back downwind, parallel to the runway, and throttling back. This enabled subsequent pairs to progressively cut the corner and drop into line astern behind the leader. On setting course, the formation would change to ‘finger fours’, also known as ‘battle formation’.

ACROSS THE LINES

In clear weather the Tempests would cross the lines at 7000-8000 ft, remaining at that height until reaching their allocated target area. The lead section would then descend to 4000 ft or lower to search for targets whilst the rest of the formation flew at 1000 ft above them, down sun, to keep watch for enemy aircraft attempting interception. After several attacks the next section would change places with the attackers and so on until, when ammunition was running low, the formation would climb to 8000 ft for return to base in battle formation.

In cloudy weather a high level of airmanship was required. The battle formation would move into a close finger formation to climb through the cloud until in the clear, usually at 8000-9000 ft, when it would open out into battle formation. Targets could be located through large breaks in the cloud cover or when the target area was reached (on ‘dead reckoning’). Descent through the cloud would then be made, formations having closed up again, with each section of four operating independently. If cloud was not breached by 1000 ft above the ground, the formation would climb away to try elsewhere, or return to base. Once below the cloud, however, provided there was 500-1000 ft between the ground and the cloud base, effective attacks could be carried out. In such conditions it was vitally important for the section to keep together, which called for steady flying in cloud and discipline in the attacks. When the ceasefire order was given the section would close up and climb back through the cloud on a course for base.

RETURN

After crossing the bomb line, height was rapidly lost and close finger-formation changed to close line astern as the circuit was entered. With as many as 11 squadrons operating from a single base, circuit discipline had to be of the highest order. While waiting for permission to land, the base was orbited in close line astern, opening out to a long line astern or echelon at the last minute. It was the leader’s responsibility to get his section in as soon as possible after the No 4 of the preceding section, without wasting time or having to go round again. This was especially important as many

operations were flown to the limit of fuel reserves, and the leader had to bear in mind that the rest of the section's fuel reserves were probably less than his own for they had had to adjust their throttles frequently to maintain position in the formation.

On a 1600-yard runway, the No 4 in the section was usually touching down as No 1 turned off the end of the runway, with each aircraft landing on the opposite side of the runway to preceding aircraft. Pilots were instructed to keep rolling to the end of the runway, but collisions were often caused by the poor state of the temporary or much-repaired runways that were the norm on 2nd TAF bases. Landing in pairs was not permitted due to the danger of tyre-bursts and the resulting swerve.

Practically all 'armed recces' were carried out beyond Allied radar coverage and sometimes even beyond R/T coverage. In these cases important messages were relayed via sections that were in range. In addition to the operational control, a homing service was generally available, but pilots were encouraged to navigate their own route and return so as to keep them in practice for the occasions when they were beyond range or R/T failed.

THE OPPOSITION

In fighter-versus-fighter combat the standard Luftwaffe opposition at the time – the Bf 109G/K and Fw 190A – were considered no great problem for the Tempest. Although unable to match the climb performance of the German types, the Tempest was their equal in the turn and could out-dive them with ease. The later version of the Fw 190, the 'Dora', which was met in increasing numbers from December 1944, was more of a problem, and even more so the ultimate Fw 190 development to see service, the Ta 152H, hailed by many as the best piston-engined fighter of the war. Fortunately for 2nd TAF, this latter machine only appeared in very small numbers and in the last weeks of the war.

Ultimately it was the pilot who was able to employ the advantages of his aircraft and avoid its weaknesses who was successful. A post-war report quotes a combat between a Tempest and an Fw 190D (this was Sqn Ldr Evan Mackie's combat on 7 March 1945, after which he said he could have wrung the sweat out of his battledress when he returned to base) on a clear day at 3000 ft, the dogfight being uninterrupted by other aircraft. At 3750 rpm and +11 lb boost, the Tempest would be almost in a position to open fire after three complete turns, at which point, disobeying the golden rule of not changing bank, the Fw 190D pilot would throttle back completely, reverse the turn and stall, turning to meet the Tempest almost head-on. This manoeuvre was made four times, and the German pilot managed to get a deflection shot at the Tempest on the last occasion. After each of these turns the Fw 190D pilot tried to dive away, but was overhauled and the sequence began again. After ten minutes of deadlock two more Tempests arrived and distracted the unfortunate German, who was promptly shot down by the original Tempest.

The Me 262 jet fighter was a more difficult proposition. Even with a height advantage and a dive, the Tempest could not overhaul an Me 262. Fortunately, most of these jets that were encountered by 2nd TAF were designated and equipped as bombers and seemed disinclined to attack fighter formations. The most successful 2nd TAF fighter tactic against this formidable foe was to locate the jets' base and visit it several times during the day in an attempt to catch the Me 262s at their most vulnerable – when taking off or landing. This tactic yielded good results on several occasions, but the operation was (in the words of the original report) 'extremely interesting' due to the German counter, which was to pack the approaches to their jet airfields with automatic flak weapons.

AGAINST TRANSPORT

German MET carried lookouts on the mudguard and on the roof or at the back, so attacks had to be carefully planned and executed rapidly, taking advantage of areas where no cover was available for the enemy. The approach was carried out in a wide turn, losing height, so that when lining up the target the aircraft would be at a normal speed and not higher than 1500 ft. After steadying the aircraft and stabilising the target in his sights, the pilot would open fire at a height of around 700 ft, some 500 yards from the target in a 25- to 30-degree dive. The angle of attack on a moving target (in relation to the direction in which it was moving) could vary from 0 to 90 degrees. Ideally, MET and locomotives were attacked at an angle of 30 degrees and from the front.

Departure from the target was made at full throttle, low level, for about 30 seconds, and with a turn to get out of the line of fire of subsequent aircraft. Normally, only one attack was made, unless there were multiple targets and there was no danger from flak. In the frontline area flak was particularly concentrated, and repetition of attacks was extremely risky. Tempting targets needed some consideration before attacking – dummy MET or trains surrounded by a great amount of light flak were often set up for the unwary 'Jabo' pilot.

Cannon and machine guns were especially effective against MET, columns of troops and locomotives. Strafing was more accurate than bombs or RP and could be 'walked' along a convoy. Locomotives would usually explode when under

attack, but destruction wrought on the rail trucks depended on what they were carrying. It was normal for German trains to include at least one flak position and typically as many as three – one just behind the engine, one mid train and the third at the end. Some Tempest squadrons used a special tactic against this very dangerous type of target. A section of four would fly in a long line astern parallel to the track, and on the leader's word all four aircraft would turn 90 degrees on to the target, about 150 yards apart, No 1 dealing with the locomotive and Nos 2, 3 and 4 with a flak position each. It required experienced pilots working well as a team for the tactic to be successful.

Flak damage or technical problems were a fact of life, and pilots were always prepared to cope with the outcome of when they found themselves in these situations, and to support others who were experiencing emergencies. Visual checks as to whether drop tanks had been released, or to determine the extent of damage were automatically carried out when formations reformed. Pilots in emergency were escorted back at least to Allied lines, and usually to a landing either at their home base or other location where word of their having landed safely could be reported. If a pilot had a tank that had failed to release he would normally be the last to land so that any damage to the runway would not prevent the rest of the formation from landing.

TEMPEST SQUADRONS

No 3 Sqn

Codes – QO, JF, J5

First Tempest Vs received for experience at Manston on 28 February 1944. Full conversion to Tempest, replacing Typhoons, commencing at Bradwell Bay on 7 March 1944. No 150 Airfield/Wing March 1944. First Tempest operation on 23 April 1944. No 122 Wing September 1944, No 124 Wing August 1945, No 135 Wing September 1945, No 123 Wing January 1946. Re-equipped with Vampire F 1s from 10 April 1948, last Tempest flown to the UK on 21 June 1948. Code letters QO, changing to JF on 5 June 1944 and J5 post-war.

Commanding Officers

Sqn Ldr A S Dredge AFC (2/44) to 8/44

Sqn Ldr K A Wigglesworth DFC 8/44 to 9/44

Sqn Ldr H N Sweetman DFC 9/44 to 1/45

Sqn Ldr K F Thiele DSO DFC* 1/45 to 2/45

Sqn Ldr R B Cole DFC* 2/45 to 4/47

Flt Lt F L Latham 4/47 to 5/47

Sqn Ldr C H Macfie DFC 5/47 to (6/48)

Bases

Manston 28/2/44

Bradwell Bay 6/3/44

Ayr 6/4/44

Bradwell Bay 14/4/44

Newchurch 28/4/44

Matlaske 21/9/44

B60 28/9/44

B80 1/10/44

Warmwell 1/4/45

B112 17/4/45

B152 26/4/45

B160 21/6/45

B156 18/7/45

B158 8/8/45

B155 5/9/45

B106 14/9/45

B155 16/9/45

B170 6/10/45

B152 27/10/45

Wunstorf 24/1/46

Gatow 27/3/46

Dedelstorf 6/5/46

Manston 2/6/46

Dedelstorf 12/6/46

Manston 5/9/46

Wunstorf 19/9/46

Sylt 22/10/46

Wunstorf 25/11/46

Gatow 5/1/47

Wunstorf 3/2/47

Duxford 2/9/47

Wunstorf 16/9/47

(Gatow det 10/47)

Lübeck 5/1/48

Wunstorf 25/1//48

No 5 Sqn

Code – OQ

First Tempest IIs received on 5 March 1946 at Bhopal, India, replacing Thunderbolts. Disbanded 1 August 1947.

Commanding Officers

Sqn Ldr L H Dawes DFC (3/46) to 5/46

Sqn Ldr F Rothwell DFC 6/46 to 8/47

Bases

Bhopal 5/3/46

Poona 1/6/46

Yelahanka 3/1146

Poona 10/11/46

Risalpur 6/1/47

Peshawar 22/1/47

(Miramshah det 3/47)

Mauripur 1/7/47

No 6 Sqn

Code – JV

Tempest VIs replaced Spitfire IXs and Hurricane IVs at Nicosia, Cyprus, and first flown on 31 December 1946. No 324 Wing June 1947. Re-equipment with Vampire FB 5 commenced 17 September 1949. Last Tempest sortie flown on 12 November 1949.

Commanding Officers

Sqn Ldr C K Gray DFC (12/46) to 11/47

Sqn Ldr D Crowley-Milling DSO DFC 11/47 to (11/49)

Bases

Nicosia 31/12/46

Shallufa 1/9/47

Khartoum 30/11/47

Mogadishu 1/2/48

Khormaksar 7/2/48

Khartoum 11/2/48

Fayid 5/5/48

Deversoir 30/8/48

Nicosia 20/1/49

Deversoir 4/3/49

Nicosia 24/10/49

No 8 Sqn

Code – RT (Code letters RT were carried on the first four Tempests received for a short period only)

First Tempest VIs arrived at Khormaksar, Aden, on 27 March 1947, replacing Mosquito FB VIs. Conversion to Brigands commenced in July 1949, the last Tempest being ferried back to the UK on 11 March 1950.

Commanding Officers

Sqn Ldr F W M Jensen DFC AFC (3/47) to 4/49

Sqn Ldr A M S Steedman DFC 4/49 to (3/50)

Base

Khormaksar 27/3/47

(Nairobi det 6/49)

No 16 Sqn

Code – EG

Reformed by renumbering Tempest V-equipped No 56 Sqn at Fassberg on 1 April 1946, and continuing with No 135 Wing. Re-equipment with Tempest IIs began in August 1946. First Vampire FB 5s received in December 1948 and the Tempests were last flown in January 1949.

Commanding Officers

Sqn Ldr M P Kilburn DFC 4/46 to 4/46

Sqn Ldr D C Usher DFC DFM 4/46 to 1/48

Sqn Ldr R E Mooney 1/48 to 6/48

Sqn Ldr L A Malins DSO DFC 6/48 to 12/48

Sqn Ldr L H Lambert DFC 12/48 to 1/49

Bases

Fassberg 1/4/46

Manston 1/6/46

Fassberg 12/6/46

Sylt 20/6/46

Fassberg 14/7/46

Manston 5/9/46

Fassberg 16/9/46

Gatow 4/2/47

Fassberg 20/3/47

Ahlhorn 8/5/47

Fassberg 20/5/47

(Middle Wallop det 6-7/47)

Zeltweg 13/7/47

Fassberg 11/8/47

Middle Wallop 6/10/47

Fassberg 17/10/47

Lübeck 3/11/47

Fassberg 24/11/47

Gütersloh 1/12/47

Gatow 6/1/48

Gütersloh 2/2/48

(Lübeck det 7-8/48)

Manston 9/9/48

Gütersloh 19/9/48

No 20 Sqn

Code – HN

First Tempest IIs received at Agra, India, on 19 May 1946, replacing Spitfire XIVs. Disbanded 31 July 1947.

Commanding Officers

Sqn Ldr J J Ritchie AFC 6/46 to 10/46

Sqn Ldr R A Newbery DFC 11/46 to 7/47

Bases

Agra 19/5/46

(Kohat det 8/46)

(Miramshah det 8/46)

Mauripur 25/7/47

No 26 Sqn

Code – XC

Reformed by renumbering Tempest V-equipped No 41 Sqn at Wunstorf on 1 April 1946, continuing at first with No 123 Wing, but transferring to No 135 Wing by the end of the month. First Tempest II arrived on 19 June 1946, full conversion taking place the following month. Re-equipped with Vampire FB 5s from 20 April 1949, last Tempest returning to the UK on 6 May 1949.

Commanding Officers

Sqn Ldr H Ambrose DFC 4/46 to 5/47

Sqn Ldr J Brandt DFC 5/47 to 12/47

Sqn Ldr A D Mitchelll DFC* AFC 12/47 to 6/48

Sqn Ldr J W Frost DFC 6/48 to 9/48

Sqn Ldr J F Macphie 9/48 to (5/49)

Bases

Wunstorf 1/4/46

Fassberg 13/4/46

Gatow 8/5/46

Fassberg 17/6/46

Chivenor 24/9/46

Fassberg 23/10/46

Sylt 6/1/47

Fassberg 15/2/47

Ahlhorn 8/5/47

Fassberg 20/5/47

Zeltweg 10/7/47

Fassberg 11/8/47

Gütersloh 19/11/47

Gatow 5/12/47

Gütersloh 5/1/48

Lübeck 11/2/48

Gütersloh 6/3/48

Lübeck 7/6/48

Gütersloh 5/7/48

No 30 Sqn

Code – RS

First Tempest IIs received at Bhopal, India, on 4 March 1946, replacing Thunderbolts. Disbanded 1 December 1946.

Commanding Officers

Sqn Ldr T H Meyer (3/46) to 8/46

Sqn Ldr R A Newbery DFC* 8/46 to 12/46

Bases

Bhopal 4/3/46

Agra 27/5/46

No 33 Sqn

Code – 5R

First Tempest Vs received at Predannack on 20 December 1944, replacing Spitfire IXs. Joined No 135 Wing February 1945. Re-equipped with Tempest IIs from October 1946. Left No 135 Wing in Germany at the beginning of July 1949 for transit to Malaya on board HMS Ocean. It was the last operational Tempest squadron in the RAF, the unit flying its final sorties on 6 June 1951, re-equipment with Hornet F 3s having commenced the previous April.

Commanding Officers

Sqn Ldr I G S Matthews DFC (12/44) to 3/45

Sqn Ldr A W Bower DFC 3/45 to 6/46

Sqn Ldr R N G Allen DFC 6/46 to 6/48

Sqn Ldr D G Smallwood DSO DFC 7/48 to 9/48

Sqn Lddr A K Furse DFC 9/48 to 4/51

Sqn Ldr C C F Cooper 4/51 to (6/51)

Base

Predannock 20/12/44

B77 21/2/45

B91 7/4/45

B109 20/4/45

B155 19/6/45

B106 14/9/45

B170 17/9/45

B155 7/10/45

B152 23/10/45

Gatow 2/1/46

Fassberg 17/2/46

Sylt 31/3/46

Fassberg 8/5/46

Manston 1/6/46

Fassberg 12/6/46

Gatow 18/6/46

Fassberg 24/9/46

Ahlhorn 8/5/47

Fassberg 20/5/47

Zeltweg 13/7/47

Fassberg 11/8/47

Gatow 12/9/47

Fassberg 29/9/47

Gütersloh 1/12/47

Lübeck 5/1/48

Gütersloh 12/2/48

Gatow 28/4/48

Gütersloh 4/6/48

Seletar 7/8/49

Changi 10/8/49

Butterworth 10/9/49

Changi 13/10/49

Kai Tak 4/11/49

Changi 16/11/49

(Kuala Lumpur det 1-4/50)

Tengah 17/3/50

Butterworth 30/5/50

No 39 Sqn

Reformed as a Tempest VI unit, pilots assembling at Manston in June 1948 to convert to type and ferry their aircraft out to Khartoum, Sudan, arriving 4 July 1948. Tempest flying ceased on 28 February 1949, the squadron reforming the next day as a Mosquito nightfighter unit. No squadron codes carried.

Commanding Officer

Sqn Ldr A M S Steedman DFC 6/47 to 2/49

Bases

Khartoum 4/7/48

(Asmara det 8/48)

No 41 Sqn

Code – EB

Received Tempest Vs in exchange for its Spitfire XIVs at Lübeck on 13 September 1945, remaining with No 124 Wing. No 123 Wing January 1946. Renumbered No 26 Sqn on 1 April 1946.

Commanding Officers

Sqn Ldr J B Shepherd DFC* (9/45) to 1/46

Sqn Ldr H Ambrrose DFC 1/46 to 3/46

Bases

B158 13/9/45

Wunstorf 1/2/46

Sylt 1/3/46

Wunstorf 23/3/46

No 54 Sqn

Code – HF

Reformed on 15 November 1945 with Tempest IIs by renumbering No 183 Sqn at Chilbolton. Re-equipped with Vampire F 1 aircraft from 11 October 1946, the Tempests being ferried to Aston Down three days later.

Commanding Officer

Sqn Ldr F W M Jensen DFC AFC (11/45) to 10/46

Bases

Chilbolton 15/11/45

Odiham 28/6/46

Acklington 9/8/46

Odiham 27/8/46

Molesworth 5/9/46

Odiham 30/9/46

No 56 ‘Punjab’ Sqn

Code – US

First Tempest Vs received at Newchurch on 24 June 1944, replacing temporary equipment of Spitfire IXs. Operations with Tempests commenced on 2 July 1944. No 122 Wing September 1944. No 135 Wing September 1945. Renumbered No 16 Sqn on 1 April 1946.

Commanding Officers

Sqn Ldr A R Hall DFC 5/44 to 9/44

Sqn Ldr D V C Cotes-Preedy DFC GM 9/44 to 2/45

Sqn Ldr R W A MacKichan DFC* 2/45 to 5/45

Sqn Ldr M P Kilburn DFC 5/45 to 3/46

Bases

Newchurch 24/6/44

Matlaske 23/9/44

B60 28/9/44

B80 1/10/45

B112 12/4/45

B152 27/4/45

Warmwell 8/5/45

B152 23/5/45

B160 23/6/45

B164 23/8/45

B155 5/9/45

B106 14/9/45

B155 16/9/45

B152 24/10/45

Sylt 1/1/46

Fassberg 22/1/46

Gatow 22/2/46

Fassberg 26/3/46

No 80 Sqn

Code – W2

Borrowed four Tempest Vs for familiarisation at West Malling on 9 August 1944, receiving further Tempests to replace its Spitfire IXs from 27 August 1944. First operation flown on 30 August 1944. No 125 Wing October 1944, No 122 Wing October 1944, No 124 Wing September 1945, No 123 Wing January 1946. Tempests replaced by Spitfire F 24s in January 1948.

Commanding Officers

Sqn Ldr R L Spurdle DSO DFC* (8/44) to 1/45

Sqn Ldr E D Mackie DSO DFC* 1/45 to 4/45

Maj R A Henwick DFC (SAAF) 4/45 to 11/45

Sqn Ldr A H B Friendship DFM* 11/45 to 5/46

Sqn Ldr H E Walmsley DFC 5/46 to 11/47

Sqn Ldr R A Newbery DFC* 12/47 to 1/48

Base

West Malling 9/8/44

Manston 30/8/44

Coltishall 20/9/44

B70 29/9/44

B82 1/10/44

B80 7/10/44

B112 11/4/45

Warmwell 18/4/45

B152 8/5/45

B160 22/6/45

B158 6/9/45

B170 29/10/45

B158 16/11/45

Wunstorf 31/1/46

Dedelstorf 17/4/46

Sylt 4/5/46

Dedelstorf 12/6/46

Gatow 19/7/46

Dedelstorf 26/8/46

Manston 5/9/46

Wunstorf 19/9/46

Sylt 14/2/47

Wunstorf 22/3/47

Middle Wallop 5/5/47

Wunstorf 16/5/47

Gatow 3/6/47

Wunstorf 30/6/47

Duxford 2/9/47

Wunstorf 18/9/47

No 152 ‘Hyderbad’ Sqn

Code – UM

First Tempest IIs received at Risalpur, British India, on 22 July 1946, replacing Spitfire VIIIs and XIVs. Disbanded on 31 January 1947.

Commanding Officers

Sqn Ldr G B Smither DFC (7/46) to 8/46

Sqn Ldr G T A Douglas DFC 8/46 to 1/47

Base

Risalpur 22/7/46

No 174 ‘Mauritius’ Sqn

Code – JJ

Reformed with Tempest Vs, on 9 September 1945, by renumbering No 274 Sqn while attending No 14 APC at Warmwell. The unit returned to Germany on 20 September 1945, joining No 135 Wing, only to be disbanded on 31 March 1946.

Commanding Offcer

Sqn Ldr D C Usher DFC DFM 9/45 to 3/46

Bases

Warmwell 9/9/45

B155 20/9/45

Gatow 19/10/45

B152 26/11/45

No 183 ‘Gold Coast’ Sqn

Code – HF

Converted from its temporary Spitfre IXs to Tempest IIs at Chilbolton in August 1945, the frst squadron to be so equipped. Renumbered No 54 Sqn on 15 November 1945.

Commanding Offcers

Sqn Ldr J R Cullen DFC 2/45 to 10/45

Sqn Ldr F W M Jensen DFC AFC 10/45 to 11/45

Bases

Chilbolton 8/45

Fairwood Common 9/10/45

Chilbolton 15/11/45

No 213 ‘Ceylon’ Sqn

Code – AK

First Tempest VIs received at Nicosia, Cyprus, on 21 January 1947, replacing Mustang IVs. No 324 Wing June 1947. Re-equipped with Vampires, commencing 12 November 1949. The last Tempests were fown out in February 1950.

Commanding Offcers

Sqn Ldr D C Colebrook (1/47) to 1/48

Flt Lt H E A Douglas-Reid 1/48 to 4/48

Sqn Ldr P J Kelley DFC 4/48 to 4/49

Sqn Ldr D J A Roe DSO DFC 4/49 to (2/50)

Bases

Nicosia 21/1/47

Shallufa 3/9/47

Khartoum 22/10/47

(Asmara det 3-5/48)

Mogadishu 17/8/48

Deversoir 21/10/48

Nicosia 4/3/49

Deversoir 21/4/49

Khartoum 15/7/49

(Asmara det 7/49)

Deversoir 4/8/49

No 222 ‘Natal’ Sqn

Code – ZD

Left No 135 Wing in Holland and exchanged Spitfre IXs for Tempest Vs at Predannack from 18 December 1944, returning to No 135 Wing when conversion was complete. Left Tempests at Westonzoyland on 23 October 1945 and re-equipped with Meteors at Molesworth the next day.

Commanding Offcers

Sqn Ldr H C Rigby DFC* (12/44) to 1/45

Sqn Ldr E B Lyons DFC 1/45 to 5/45

Sqn Ldr R M Mathieson 5/45 to 10/45

Bases

Predannack 18/12/44

B77 21/2/45

B91 7/4/45

B109 20/4/45

Fairwood Common 3/6/45

B155 25/6/45

Manston 3/9/45

Westonzoyland 5/9/45

Chilbolton 10/9/45

Westonzoyland 15/9/45

No 247 ‘China-British’ Sqn

Code – ZY

Flew its Typhoons from Germany to re-equip with Tempest IIs at Chilbolton at the end of August 1945, last Typhoon being ferried to Aston Down on 27 November 1945. Tempests exchanged for Vampire F 1s, the frst squadron to be so equipped, in April 1946.

Commanding Offcers

Sqn Ldr J H Bryant DFC 1/45 to 12/45

Sqn Ldr C Scott-Vos DFC 12/45 to (4/46)

Bases

Chilbolton 8/45

Fairwood Common 8/1/46

Chilbolton 16/2/46

No 249 ‘Gold Coast’ Sqn

Code – GN

Tempest VIs received at Habbaniya on 23 December 1946, replacing Mosquitoes. No 324 Wing March 1949. Tempests replaced by Vampires commencing 9 January 1950, the last Tempests departing for the UK in March 1950.

Commanding Offcers

Sqn Ldr J I Kilmartin DFC (12/46) to 11/47

Sqn Ldr P F Steib DFC 12/47 to 10/48

Sqn Ldr J R Baldwin DSO* DFC* AFC 1/49 to 2/49

Sqn Ldr C Scott-Vos DFC 2/49 to 3/50

Bases

Habbaniya 23/12/46

(det Ramat David 4/48)

Deversoir 29/3/49

Nicosia 28/6/49

Deversoir 8/8/49

No 274 Sqn

Code – JJ

Exchanged Spitfre IXs for Tempest Vs at West Malling on 7 August 1944 and frst operational sorties were fown fve days later. No 125 Wing October 1944. No 122 Wing October 1944. No 135 Wing March 1945. Renumbered No 174 Sqn at Warmwell on 7 September 1945.

Commanding Offcers

Sqn Ldr J F Edwards DFC DFM (8/44) to 8/44

Sqn Ldr M G Barnett DFC 8/44 to 9/44

Sqn Ldr J R Heap DFC 9/44 to 11/44

Sqn Ldr A H Baird DFC 11/44 to 2/45

Sqn Ldr D C Fairbanks DFC* 2/45 to 2/45

Sqn Ldr W J Hibbert DFC 3/45 to 4/45

Sqn Ldr D C Usher DFC DFM 4/45 to 9/45

Bases

West Malling 7/8/44

Manston 17/8/44

Coltishall 20/9/44

B70 29/9/44

B82 2/10/44

B80 7/10/44

B91 17/3/45

B109 20/4/45

B155 20/6/45

Warmwell 3/9/45

No 287 Sqn

Code – KZ

A non-operational unit that operated Tempest Vs (mostly Series 1 aircraft) on anti-aircraft cooperation duties between November 1944 and June 1946. Based at Gatwick, Redhill, Hornchurch, Bradwell Bay and West Malling.

No 349 Sqn

Began conversion from Spitfre IXs to Tempest Vs at Predannack in February 1945, but this was abandoned owing to shortage of Tempests and the unit returned to operations with Spitfres in April 1945.

No 485 Sqn RNZAF

Began conversion from Spitfre IXs to Tempest Vs at Predannack in February 1945 but this was abandoned owing to shortage of Tempests and the unit returned to operations with Spitfres in April 1945.

486 Sqn RNZAF

Code – SA

Received fve Tempest Vs while equipped with Typhoons at Tangmere in January 1944, but these were transferred to No 3 Sqn the following month. Full re-equipment with Tempest V took place at Castle Camps in April 1944. A detachment at Bradwell Bay few the last Typhoon sorties on 14 April 1944. No 150 Airfeld/Wing April 1944, No 122 Wing September 1944, No 122 Wing June 1945, No 124 Wing July 1945. Tempests handed over to No 41 Sqn on 14 September 1945 and offcially disbanded on 12 October 1945.

Commanding Offcers

Sqn Ldr J H Iremonger DFC 1/44 to 12/44

Sqn Ldr A E Umbers DFC 12/44 to 2/45

Sqn Ldr K G Taylor-Cannon DFC 2/45 to 4/45

Sqn Ldr W E Schrader DFC 4/45 to 5/45

Sqn Ldr C J Sheddan DFC 5/45 to (9/45)

Bases

Tangmere 1/44

Beaulieu 31/1/44

Drem 28/2/44

Castle Camps 8/3/44

Ayr 21/3/44

Castle Camps 29/3/44

Newchurch 30/4/44

Matlaske 19/9/44

B60 28/9/44

B80 1/10/44

B112 11/4/45

B150 26/4/45

B118 6/5/45

B160 8/5/45

B158 6/7/45

B166 8/8/45

No 501 ‘County of Gloucester’ Sqn

Code – SD

First Tempest Vs received at Westhampnett on 18 July 1944, replacing Spitfre IXs. First operations fown on 22 August 1944. Remained with ADGB. Disbanded 20 April 1945.

Commanding Offcers

Sqn Ldr M G Barnett (7/44) to 8/44

Sqn Ldr J Berry DFC 8/44 to 10/44

Sqn Ldr A Parker-Rees DFC 10/44 to 4/45

Bases

Westhampnett 18/7/44

Manston 2/8/44

Bradwell Bay 23/9/44

Hunsdon 3/3/45

Key to numbered Airfields

B60 Grimbergen

B70 Deurne

B77 Gilze-Rijen

B80 Volkel

B82 Grave

B91 Kluis

B106 Twente

B109 Quackenbrück

B112 Hopsten

B118 Celle

B150 Hustedt

B152 Fassberg

B155 Dedelstorf

B156 Lüneberg

B158 Lübeck

B160 Kastrup

B164 Schleswig

B166 Flensburg

B170 Sylt

B172 Husum

COLOUR PLATES

1
Tempest V JN738/SA-Z of No 486 Sqn, Beaulieu, February 1944

As the tenth production Mk V Series 1 aircraft, JN738 was one of five Tempests delivered to No 486 Sqn in January 1944 for familiarisation – the others were coded V, W, X and Y. It was transferred to No 3 Sqn on 28 February 1944, remaining with it until loaned to the RAE in July 1944 for paintwork and boost trials. In December 1944, in common with several other surviving Series 1 aircraft, JN738 was allocated to No 287 Sqn for AA cooperation work. After a short period of storage at No 5 MU Kemble in 1947, it was sold for scrap.

2
Tempest V JN735/JF-X of No 3 Sqn, Newchurch, June 1944

The seventh production Series 1 aircraft, JN735 joined No 486 Sqn in January 1944 as SA-Z, and it was one of those Tempests damaged by a birdstrike on 4 February. Swiftly repaired, it was allocated to No 3 Sqn at the end of the month, remaining with the unit to fly many of the early anti-‘Diver’ patrols. The aircraft was loaned to the RAE to replace JN738, which was suffering engine problems, but on its first flight with 150 octane fuel and increased boost the engine seized and Lt Cdr Eric ‘Winkle’ Brown was forced to bail out.

3
Tempest V JN875/US-P of No 56 Sqn, Newchurch, July 1944

One of the initial batch of Tempests delivered to No 56 Sqn, this aircraft was allocated to Flt Lt Bateman-Jones and it is seen here after ‘D-Day stripes’ had been removed to enhance performance. After repairs in September 1944, the fighter flew with No 3 Sqn and then after further damage had been rectified in March 1945 it was back with No 56 Sqn as US-L. Damaged yet again in March 1946, the fighter saw no further active service and was sold for scrap in November 1950.

4
Tempest V EJ740/W2-G of No 80 Sqn, B80 Volkel, October 1944

Joining No 80 Sqn in September 1944 as W2-G, EJ740 remained with the unit until April 1945 (it had to be repaired twice during this time), often flown by Rhodesian Flt Lt Tony Seager. On 13 October 1944 he damaged an Me 262 and on 23 January 1945 he claimed an Fw 190 destroyed and a second Focke-Wulf damaged while flying this aircraft. Earlier in the day it had been used by Sqn Ldr E D Mackie to shoot down a Bf 109 and on Christmas Day 1944, flown by Plt Off Reg Verran, it damaged an Ar 234 that subsequently crash-landed. In the last two weeks of the war EJ470 flew with No 56 Sqn as US-X, and post-war it was converted to TT 5 standard, operating from Leconfield as FJU-L and from Sylt as Y.

5
Tempest V EJ558/SD-R of No 501 Sqn, Bradwell Bay, October 1944

EJ558 was supplied to No 501 Sqn from No 3501 Servicing Unit at Cranfield in August 1944. Often flown by Flt Off ‘Bud’ Miller, a USAAF pilot on detachment with the FIU/No 501 Sqn, EJ558 carried a V1 scoreboard, which appeared to relate to his score while flying Tempests. The aircraft remained with No 501 Sqn until the unit was disbanded in April 1945 and, after a brief spell at No 83 GSU, languished in storage at Aston Down until sold to Hawker for spares in November 1950.

6
Tempest V EJ762/JJ-F of No 274 Sqn, B80 Volkel, November 1944

No 274 Sqn's 'A' Flight commander, Flt Lt D C Fairbanks, later to become the top-scoring Tempest ace, adopted EJ762 as his new 'F' when it arrived on the squadron at the end of September 1944 (replacing his previous 'F', EJ647, damaged on 27 September). He was flying it when he survived being hit by flak on 19 November, and also, after repair, when he claimed two Bf 109s on 17 December 1944. Soon after the latter incident Fairbanks was posted to No 3 Sqn, but EJ762 remained with No 274 Sqn until it was lost on 1 February 1945 when Flt Lt J Bruce had to make a forced landing near Krefeld, in Germany, and was taken prisoner.

7
Tempest V SN206/5R-B of No 33 Sqn, B109 Quackenbrück, May 1945

SN206 was one of the aircraft that took part in both operations carried out by Tempest dive-bombers of No 33 Sqn, on 3 and 4 May 1945. These were the only sorties when bombs were dropped by Tempests on operations during the hostilities. SN206 remained in service with No 33 Sqn until the unit was equipped with Tempest IIs in October 1946. After storage at No 5 MU at Kemble, it was sold for scrap in 1950.

8
Tempest V NV933/ZD-W of No 222 Sqn, B109 Quackenbrück, May 1945

One of ‘Treble Two’s’ initial Tempest equipment in February 1945, NV933 was written off shortly after VE-Day when, on 19 May 1945, Flt Sgt Frank Salter RAAF swung on landing and collided with an ambulance and fire truck. He was unhurt.

9
Tempest V SN113/W2-F of No 80 Sqn, B160 Kastrup, July 1945

Joining the unit at the end of April 1945, when No 80 Sqn was attending Warmwell APC, SN113 was coded ‘F’ and carried WO ‘Jimmy’ Kyle’s choice of name, *Chopper* . It continued in service with No 80 Sqn until the unit replaced its Tempests with Spitfire F 24s in January 1948. Subsequently stored at No 6 MU at Brize Norton, it was eventually sold for scrap in February 1950.

10
Tempest II MW774/HF-X of No 183 Sqn, Chilbolton, September 1945

This aircraft was one of No 183 Sqn's initial delivery of Tempests, the aircraft remaining with the unit when it was renumbered as No 54 Sqn in November 1945. MW774 continued to serve with the unit until it was replaced by a Vampire F 1 in October 1946, the fighter being returned to Hawker for refurbishment. The Tempest II would, however, see no further active service and was sold for scrap from No 20 MU in August 1951.

11
Tempest II MW798/ZY-H of No 247 Sqn, Chilbolton, September 1945

Delivered to No 247 Sqn at Chilbolton in mid-September 1945, MW798 was operated as ‘H’ until the unit re-equipped with Vampire F 1s. It was then transferred to No 54 Sqn and coded HF-M, remaining in use until July 1946. In August 1947 it was allocated to No 5 School of Technical Training at Locking, in Somerset, as an instructional airframe with the serial 6388M, and it was eventually scrapped in May 1950.

12
Tempest V EJ555/JJ-W of No 174 Sqn, B55 Dedelstorf, September 1945

After operating with the FIU on anti-‘Diver’ patrols from Newchurch in July 1944, EJ555 was transferred to No 501 Sqn at Manston in August 1944 and coded SD-Y. It remained with No 501 Sqn until the unit was disbanded in April 1945, after which it was transferred to No 274 Sqn at B109 in Germany. Although the latter unit was renumbered No 174 Sqn in September 1945, EJ555 retained the JJ-W coding and carried the name *Bet* on the radiator access panel. No 174 Sqn was disbanded at the end of March 1946, and although EJ555 was refurbished by Hawker, it saw no further active service. Like so many other surplus Tempests, it was sold to the scrap man in 1950.

13
Tempest V SN254/US-T of No 56 Sqn, Fassberg, December 1945

Allocated to No 56 Sqn soon after VE-Day, SN254 became US-T and was assigned to the CO. When the unit was renumbered No 16 Sqn, it continued to serve until the arrival of Tempest IIs in August 1946. SN254 then had brief spells with No 33 Sqn (5R-S), the RAF Gatow station flight, the A&AEE and No 80 Sqn (W2-C), before entering storage with No 6 MU at Brize Norton in February 1948. It too was sold for scrap in 1950.

14
Tempest V SN213/5R-S of No 3 Sqn, Gatow, February 1946

Received by No 33 Sqn on the last day of operations against Germany, SN213 was coded 5R-S and flew with the unit until June 1946. In February of that year it was stripped of paint (the first Tempest to lose its camouflage in BAFO) and was usually flown by the commanding officer. After refurbishment by Hawker in 1946/47 it was stored until 1950 and then sold for scrap.

15
Tempest II PR536/HN-O of No 20 Sqn, Agra, June 1946

A Tempest that still survives, PR536 was one of the first Mk IIs to enter service when it was delivered to the Handling Squadron of the Empire Central Flying School for the compilation of the pilot's notes on the type in June 1945. Shipped out to Karachi, arriving in February 1946, it was allocated to No 20 Sqn and coded HN-O. PR536 was transferred to the RIAF at partition on 25 September 1947 and it survived as an airfield decoy. The aircraft now resides in the RAF Museum at Hendon.

16
Tempest V SN228/XC-D of No 26 Sqn, Gatow, June 1946

Having been flown by Wg Cdr E D Mackie as ‘EDM’ when he was Wing Commander Operations No 122 Wing, SN228 was transferred to No 41 Sqn in October 1945 – the unit was renumbered as No 26 Sqn on 1 April 1946. It was coded ‘D’ in both these units, being the personal aircraft of Sqn Ldr ‘Poppa’ Ambrose. Stripped of paint in May 1946, the fighter was eventually traded for a Mk II. It then saw brief service with No 33 Sqn as ‘S’ (replacing 5R-S/SN213) until this unit was also re-equipped with the later mark, followed by storage at Aston Down and sale for scrap in 1950.

17
Tempest II HF-H/MW833 of No 54 Sqn, Odiham, June 1946

Following a similar early history as MW798 (see profile 11), MW833 became HF-H with No 54 Sqn and was chosen, in June 1946, to be named *Canadian DCMs* following a donation by that organisation. After its service with No 54 Sqn the aeroplane was refurbished by Hawker at Langley, after which it remained in store with No 6 MU Brize Norton until sold for scrap in August 1951.

18
Tempest V SN179/EG-O of No 16 Sqn, Fassberg, July 1946

After a month’s operations with No 274 Sqn at the end of the war, SN179 remained with the unit when it was renumbered No 174 Sqn and was then transferred to No 56 Sqn in March 1946. The latter unit was soon renumbered No 16 Sqn and SN179 became EG-O. After just four months with this unit the aeroplane was made redundant in August 1946 following the arrival of the Tempest II. SN179 spent four years in store at Aston Down before being sold for scrap.

19
Tempest II PR772/UM-D of No 152 Sqn, Risalpur, November 1946

Arriving in Karachi at the end of March 1946, PR772 was prepared for service at No 320 MU at Drigh Road and delivered to No 152 Sqn at Risalpur in August 1946. Originally coded UM-D and camouflaged in the Day Fighter Scheme, it was repainted ‘Aluminium’ and decorated with the squadron crest in time for a display at the Staff College at Quetta in November 1946. In early 1947 PR772 was taken over by No 5 Sqn, retaining its silver finish but recoded as OQ-R. It was transferred to the PAF at partition on 25 September 1947.

20
Tempest II PR652/RS-S of No 30 Sqn, Agra, October 1946

Arriving in Karachi in January 1946, PR652 is known to have flown with both Nos 20 and 30 Sqns (as HN-S and RS-S, respectively) before it was transferred to the RIAF on 25 September 1947.

21
Tempest II PR723/OQ-V of No 5 Sqn, Miramshah, April 1947

Despatched to Karachi in December 1945, PR723 arrived the following month and was allocated to No 5 Sqn as QO-V. It too was transferred to the PAF on 25 September 1947.

22
Tempest VI NX241/AK-N of No 213 Sqn, Nicosia, June 1947

Ferried out to Fayid in January 1947, NX241 was then allocated to No 213 Sqn at Nicosia, coded N and adopted by Sqn Ldr D C Colebrook. After a forced landing near Khartoum on 11 August 1948 it was repaired and issued to No 6 Sqn in June 1949 and then, in November 1949, transferred to No 249 Sqn and coded A. When Vampires replaced the latter unit’s Tempests NX241 was among those returned to the UK, where, after a year in store at Brize Norton, it was sold back to Hawker for spares recovery in May 1951.

23
Tempest II PR856/XC-K of No 26 Sqn, Zeltweg, July 1947

Taken on charge by No 26 Sqn on New Year's Day 1947, PR856 served with the unit, initially as 'A' Flight commander Flt Lt 'Jack' Frost's aircraft, wearing the flight's colours on the spinner and long-range tanks. In April 1949, when the unit re-equipped with Vampire FB 5s, PR856 was returned to the UK. Following storage at No 20 MU at Aston Down, it was one of 20 surplus Tempest IIs sold to the Indian government in July-August 1951.

24
Tempest V SN330/J5-H of No 3 Sqn, Wunstorf, September 1947

Having missed wartime service, SN330 was sent out to Germany in November 1945 and issued to No 80 Sqn in January 1946. Damaged the following month, it was returned to the UK for repair by Hawker. By the time it was flown back to Germany the fighter had swapped its camouflage for the then current painted ‘Aluminium’ finish, and the Tempest was delivered to No 3 Sqn on 12 August 1947. With its spinner and code letters in the unit’s traditional green, SN330 became J5-H – the CO’s aircraft. Replaced by a Vampire F 1 in May 1948, SN330 returned to the UK for storage and was sold for scrap in November 1950.

25
Tempest F 2 PR788/5R-A of No 33 Sqn, Gütersloh, March 1948

After a year in storage at No 20 MU, PR788 was delivered to No 33 Sqn in Germany in December 1946. Serving as the commanding officer’s aircraft, it was shipped out to the Far East, arriving in July 1949. After more than a year of service in Malaya, it was tipped on its nose following a heavy landing on 24 October 1950 and withdrawn from service.

26
Tempest F 2 PR774/EG-T of No 16 Sqn, Gütersloh, April 1948

Part of No 16 Sqn’s initial equipment with Tempest IIs, PR774 remained with the unit until October 1948 when it was involved in a taxiing accident. Following repair the fighter was stored at No 20 MU at Aston Down until sold to the Indian government in July 1951.

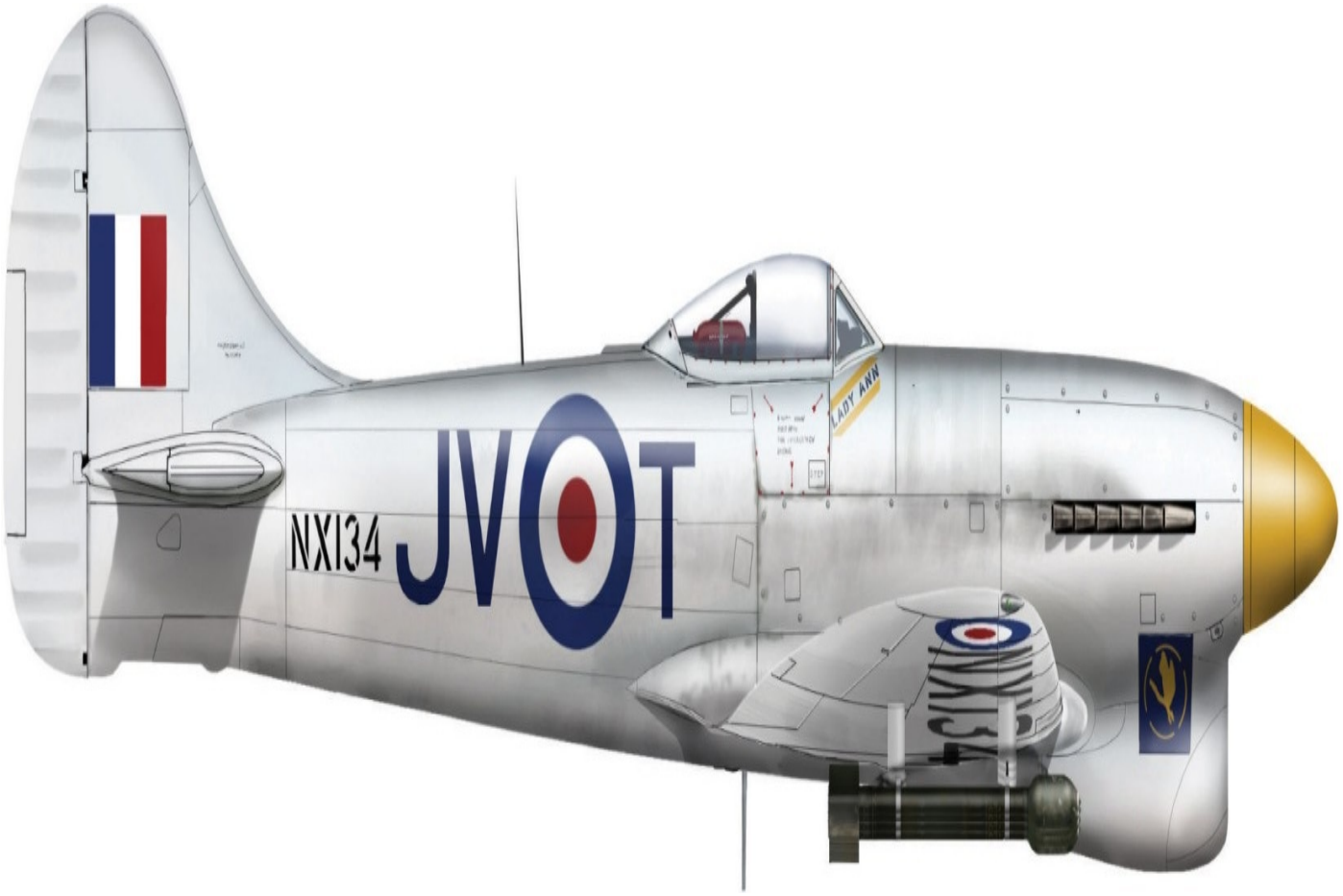
27
Tempest F 6 NX131/A of No 8 Sqn, Aden, September 1948

Flown out to the Middle East in February 1947, NX131, initially uncoded and still wearing its Day Fighter Scheme camouflage, was usually flown by No 8 Sqn's commanding officer, Sqn Ldr Frank Jensen. Eventually, NX131 was repainted 'Aluminium' overall and coded A, the aeroplane remaining with No 8 Sqn until it was transferred to No 107 MU at Kasfareet, in Egypt. The Tempest was eventually struck off charge in April 1950.

28
Tempest F 6 NX264/G of No 39 Sqn, Khartoum, January 1949

Part of the last batch of Tempest F 6s to be built, NX264 was factory-finished in the ‘Aluminium’ scheme. It was flown from Manston to Khartoum by a No 39 Sqn pilot, arriving in July 1948. On 24 January 1949 the aircraft ran into the preceding Tempest on the runway (its pilots having aborted his takeoff) and was written off.

29
Tempest F.6 NX134/JV-T of No 6 Sqn, Nicosia, February 1949



Part of No 6 Sqn's original Tempest equipment, NX134 had been delivered in Day Fighter Scheme camouflage but was re-sprayed 'Aluminium' in early 1948. Some time later in the year it acquired the name *Lady Jane* beneath the cockpit, and in January 1949 the fighter was damaged in the skirmish with Israeli Spitfires. NX134 was soon repaired and returned to service with No 6 Sqn, only to be destroyed in a landing accident at Nicosia on 24 February 1949.

30
Tempest F.6 NX132/GN-B of No 249 Sqn, Habbaniya, March 1949

On 12 March 1949, after more than two years' service with No 249 Sqn, NX132 was damaged when its pilot forgot to lower the fighter's undercarriage when landing. After repair by the Habbaniya Servicing Wing, NX132 was despatched to No 107 MU, with whom it endured another wheels-up landing (deliberate this time) following an engine failure on 24 January 1949. This resulted in Category E damage and disposal. NX132 carried the full code GN-B at one time, but in early 1949 the squadron codes were painted over.

31
Tempest F 6 NX170/K of No 249 Sqn, Deversoir, October 1949

During their initial service No 249 Sqn’s, Tempests had their drab wartime colours enlivened by red code letters outlined in white, with the spinner featuring the same colours on opposite halves. In 1949, when squadron codes had been deleted, the inside of the undercarriage doors were also painted in the same colours. NX170, seen here in the new ‘Desert’ scheme, featured a red/white spinner and probably boasted matching undercarriage decor. Retired from active service in December 1949, NX170 was eventually returned to the UK and sold to Hawker in 1951.

32
Tempest F 6 NX204/X of No 6 Sqn, Deversoir, November 1949

During the two years that Sqn Ldr Denis Crowley-Milling was CO of Tempest-equipped No 6 Sqn (November 1947 to November 1949), his personal aircraft was coded ‘X’ and was marked with the unit’s ‘gunner’s stripe’ on the fin. During that time NX204 was painted in three different camouflage schemes, namely Day Fighter Scheme, ‘Aluminium’ overall and finally the ‘Desert’ colours shown here. The aircraft was returned to the UK in December 1949 and sold back to Hawker in May 1951.

33
Tempest II PR805/5R-S of No 33 Sqn, Butterworth, May 1951

One of the last Tempests to see operational service, PR805 had previously been assigned to the Telcommunications Flying Unit at Defford, in Worcestershire, before being loaned to Rotol for propeller development trials in 1948. Shipped out to Malaya in June 1950, it was issued to No 33 Sqn in October 1950 and served until 29 May 1951, when the fighter was delivered into storage at Seletar. From there PR805 was sold to the PAF in November 1951. The aircraft is seen here in its last RAF colour scheme – the Long-range Day Fighter Scheme.

Author

This is Chris Thomas's third book for Osprey. He has previously co-written *Typhoon and Tempest Story* (1988) and four volumes of *2nd Tactical Air Force* (2004-2009) with Christopher Shores. He is the Air-Britain specialist on the Hawker Typhoon and Tempest and wrote *The Typhoon File and Warpaint No 5 – Typhoon*.

Illustrator

Chris Thomas has had profile illustrations published in *Air Enthusiast, Aeroplane Monthly, Flypast* and *Le Fana de l'Aviation*. He also illustrated the *2nd Tactical Air Force* series with more than 90 profiles of the various types employed by that force, as well as several Osprey titles, including ACE 131: *Spitfire Aces of the Channel Front 1941-43*. Producing the artwork for this volume has allowed him to bring to bear his specialist knowledge of the markings and detailed appearance of the subject aircraft.

Front Cover

On 3 December 1944 nine Tempests of No 80 Sqn left Volkel at 0900 hrs on an armed 'recce' to Quackenbrück, Vechta and Diepholz. After they had attacked barges on the Ems canal northwest of Osnabrück and Flt Lt MacKichan had engaged and damaged a Bf 109, the formation set course for base. At 0940 hrs Flt Off J W 'Judy' Garland spotted a goods train four miles south of Rheine, which he attacked with his No 2.

As they climbed away Garland sighted an enemy aircraft at low level, flying along the railway track towards Rheine, where German jets were based. Sure enough, it was an Me 262 of I./KG 51, and Garland turned to follow the jet. As he later described in his combat report, Garland 'approached from line astern, diving slightly and closing to 1000 yards without difficulty. The enemy aircraft weaved violently and I identified it as an Me 262. I closed to 400 yards and the Hun turned sharply to port, climbing to approximately 150 ft. The jet then appeared to do a high-speed stall followed by a complete flick roll. As he straightened up, the cockpit hood flew off. Closing to 150 yards, I fired one onesecond burst but saw no strikes. The enemy aircraft immediately went into a flat spin to port and crashed into a small wood approximately one mile south of the town of Rheine'. The pilot of Me 262 '9K+BH', Oberleutnant Joachim Valet, did not survive *(Cover artwork by Mark Postlethwaite)*

Title pages

Tempest V EJ888/SA-X taxies out from No 486 Sqn's dispersal at Volkel. The pilot's view was restricted by the nose of the aircraft and the airman on the wingtip was there to provide guidance on the much-damaged and roughly repaired airfield *(RNZAF)*

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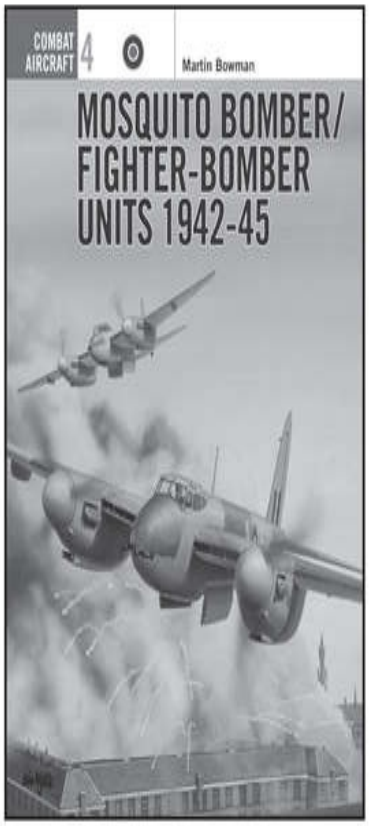

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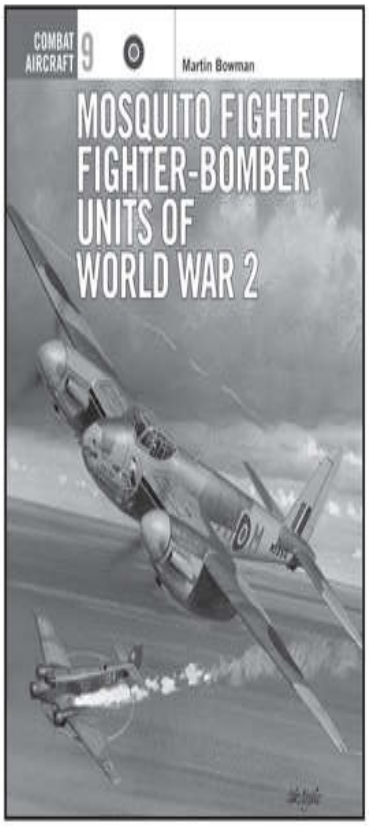

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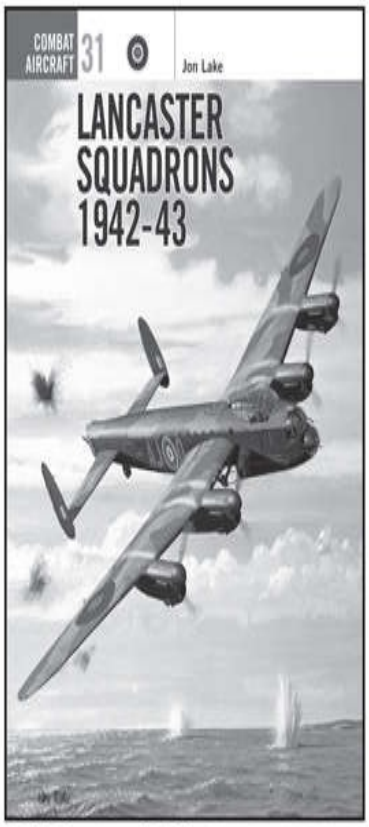

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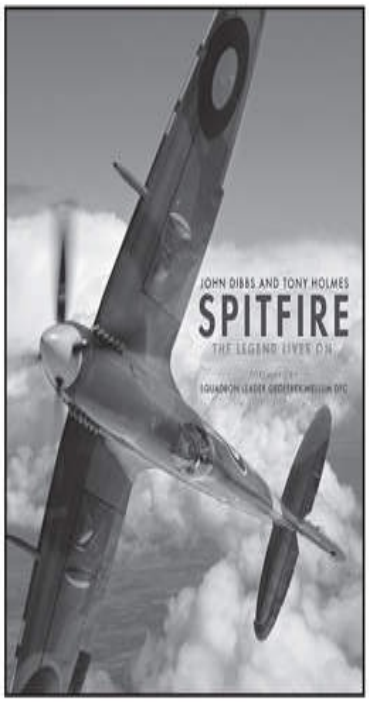

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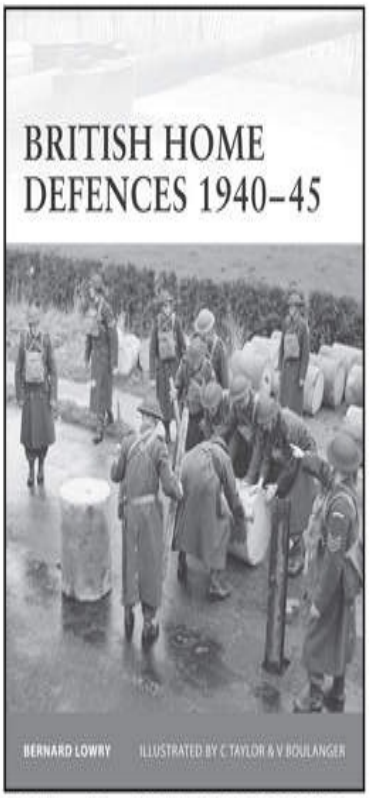

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